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THE

MEDICAL COMPANION,

OR

FAMILY PHYSICIAN;

TREATING OF THE

DISEASES OF THE UNITED STATES,

WITH THEIR SYMPTOMS, CAUSES, CURE, AND MEANS OF PREVENTION:

COMMON CASES IN SURGERY, AS FRACTURES, DISLOCATIONS, &c.

THE MANAGEMENT AND DISEASES OF

WOMEN AND CHILDREN.

A DISPENSATORY, FOR PREPARING FAMILY MEDICINES,

AND A

GLOSSARY EXPLAINING TECHNICAL TERMS.

TO WHICH ARE ADDED,

A BRIEF ANATOMY AND PHYSIOLOGY OF THE HUMAN BODY,

SHEWING, ON RATIONAL PRINCIPLES, THE CAUSE AND CURE OF DISEASES:

AN ESSAY ON HYGIEINE,

OR THE ART OF PRESERVING HEALTH, WITHOUT THE AID OF MEDICINE:

AN AMERICAN MATERIA MEDICA,

POINTING OUT THE VIRTUES AND DOSES OF OUR MEDICINAL PLANTS.

ALSO,

THE NURSE'S GUIDE.

THE SEVENTH EDITION,

REVISED, ENLARGED, AND VERY CONSIDERABLY IMPROVED.

BY JAMES EWELL,

PHYSICIAN IN WASHINGTON, FORMERLY OF SAVANNAH.

> "I have always thought it a greater happiness to discover a certain method of curing, even the slightest disease, than to accumulate the largest fortune; and whoever compasses the former, I esteem not only happier, but wiser and better too." SYDENHAM.

WASHINGTON:
PRINTED FOR THE PROPRIETORS.
1827.

PRICE FIVE DOLLARS.

39314

DISTRICT OF COLUMBIA, *to wit.*

L.S.

BE IT REMEMBERED, That on the eighth day of November, in the year of our Lord one thousand eight hundred and twenty-two, and of the Independence of the United States of America, the forty-seventh, CORDELIA B. EWELL and OLIVIA F. EWELL, of the said district, have deposited in the Office of the Clerk of the District Court for the District of Columbia, the Title of a Book, the right whereof, they claim as proprietors, in the words following, to wit: "The Medical Companion, or Family Physician; treating of the diseases of the United States, with their symptoms, causes, cure; and means of prevention; common cases in surgery, as fractures, dislocations, &c. The management and diseases of women and children: a dispensatory for preparing family medicines, and a glossary explaining technical terms. To which are added, a brief anatomy and physiology of the human body, showing on rational principles, the causes and cure of diseases: an essay on Hygieine, or the art of preserving health without the aid of medicine: an American Materia Medica, pointing out the virtues and doses of our medicinal plants. Also, the Nurse's Guide.—The sixth edition, revised, enlarged, and very considerably improved, By James Ewell, physician in Washington, formerly of Savannah. "I have always thought it a greater happiness to discover a certain method of curing even the slightest disease, than to accumulate the largest fortune: and whoever compasses the former, I esteem not only happier, but wiser and better too.—Sydenham."

In conformity to the Act of the Congress of the United States, entitled, "An Act for the encouragement of learning by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned."—And also to the Act, entitled, "An Act supplementary to the act, entitled An Act 'for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies during the times therein mentioned,' and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

In testimony whereof, I have hereunto set my hand, and affixed the public seal of my office, the day and year aforesaid.

EDM. I. LEE.

Clerk of the District Court for the District of Columbia.

HARVARD MEDICAL LIBRARY
IN THE
FRANCIS A. COUNTWAY
LIBRARY OF MEDICINE

RECOMMENDATIONS.

In testimony of the merits of this work, the following commendations, by some of the most distinguished medical characters of the United States, are inserted; together with the letters of their excellencies, Thomas Jefferson, and G. Hyde de Neuville—also, a review by Professor Mitchill, of New-York.

Baltimore, Nov. 18, 1822.

DEAR SIR,

I have been truly gratified in the perusal of the Sixth Edition of your "*Medical Companion, or Family Physician.*"

The improvements made in this new impression of your work, compared with the former editions, are indeed extensive and important. Independent of your having enlarged considerably on diseases generally, you have introduced additional matter, which greatly enhances its value. The introduction of the Nurse's Guide, as also the treatise you have given on the management of female complaints, will have the most happy effects, in correcting the gross errors daily committed by ignorant persons, and thereby save many valuable lives.

I do not hesitate to say, that this new edition of your Medical Companion, is decidedly the best popular treatise on medicine, that has ever been published; and considering it, as I verily do, a safe and useful guide for heads of families, as well as for young practitioners of medicine, I take much pleasure in recommending it to the attention of our fellow citizens, both in town and country.

I will only add, if your book meets with that encouragement, to which it is justly entitled, you will very soon be called upon, by the public, for another edition.

I am, dear sir, with much respect,
Your friend and servant,
COLIN MACKENZIE, M. D.

Dr. James Ewell.

Baltimore, Nov. 18*th* 1822.

DEAR SIR,

When the *Medical Companion* was first published, I considered it greatly superior to every work of that character I had read. I have now read the Sixth Edition, and am much gratified in having it in my power to say, that in this Edition you have so enhanced the value of the work, as to claim my unqualified approbation.

Doctor Rush, during my residence in his house, often spoke of his intention to publish a medical work for the use of families, adapted to the climate of the United States.

As he reserved it for the last act of his labours, for the benefit of mankind, unhappily he did not live to accomplish his design. In the work now presented to the public, you have fulfilled the patriotic intentions of the great and good Rush, to the utmost extent, and I sincerely hope your reward may be as it deserves, ample.

I am, dear sir, very truly, yours,

ASHTON ALEXANDER, M. D.

Dr. James Ewell.

Philadelphia, August 13, 1816.

DEAR SIR,

I have looked over, with some care, the copy of the *Third Edition* of the "*Medical Companion*," which you did me the favour to present to me.

By the additions and revisions given to this new impression of the work, it is not only enlarged, but exceedingly improved.

After stating so much, I need hardly repeat an opinion, which I publicly expressed on a former occasion, that I consider it, as indisputably, the most useful popular treatise on medicine with which I am acquainted.

Compared with the European Books of the same nature, it has, especially in relation to the treatment of the diseases of our own country, a very decided superiority.

I trust that the success of this literary enterprize may be equal to your very generous and benevolent disposition.

With great respect, I am, dear sir, yours, &c.

N. CHAPMAN, M. D.

Professor of the Institutes and Practice of Medicine and Clinical Practice, in the University of Pennsylvania, Philadelphia, *Aug*. 18*th*, 1816.

DEAR SIR,

I have derived much satisfaction from a perusal of the Third Edition of your "*Medical Companion.*"

The additions and improvements which it contains, as compared with the two first editions of the work, are extensive and important.

To families in the country, remote, not only from medical aid, but from places where common medicinal articles are to be procured, your Materia Medica alone, disclosing to them the healing resources of their own farms and forests, will be of high value. Nor, provided they be true to their best interests, and avail themselves of the advantages placed at their disposal, will your rules and directions for the preservation of health, be less useful to them.

In addition to these two important branches, now introduced into the Medical Companion for the first time, it contains a large amount of new miscellaneous matter, which cannot fail to be interesting to the reader.

On the whole, if I be not greatly mistaken in my estimation of the character of your work, it is well calculated to prove extensively useful, and to place you in the midst of the permanent benefactors of your country.

That you may receive, in reputation and wealth, your full reward, is the sincere wish of

Dear sir, your very humble
And obedient servant,
CH. CALDWELL, M. D.
Now Professor of Materia Medica and Physiology in the Transylvania University.

Dr. James Ewell.

Philadelphia, December 31, 1807.

DEAR SIR,

I have read your book entitled "*The Medical Companion,*" with pleasure, and think it worthy the attention of the citizens of the United States.

W. SHIPPEN, M. D.
Professor of Anatomy.

Dr. James Ewell.

Philadelphia, December 31, 1807.

DEAR SIR,

I have carefully perused your work, "*The Medical Companion,*" and take much pleasure in expressing my entire approbation of the plan, and of the utility with which you have conducted your inquiries. Your book cannot fail to be a very acceptable present to the public in general, and especially to our own countrymen. I really am of opinion, that you are entitled to much praise for the pains which you have taken in furnishing us with a work, the want of which has long been experienced among us.

Your friend, &c.

B. S. BARTON, M. D.

Professor of Materia Medica, Natural History and Botany.

Dr. James Ewell.

December 28, 1807.

I have read "*The medical Companion*," by Dr. James Ewell, with satisfaction. It is a book containing a variety of matter in a small compass. The practice which he recommends in diseases, is modern and judicious, and the work cannot fail of being useful in all families in the United States.

JAMES WOODHOUSE, M. D.

Professor of Chemistry in the University of Pennsylvania.

Dr. James Ewell.

DEAR SIR,

I have looked over your "*Medical Companion*," with pleasure. The arrangement of the various parts is judicious, the language plain and perspicuous, and the sentiments happily condensed; the modes of treatment grow out of the most improved state of our science, and may serve as a safe and useful guide to every family cut off from the services of able physicians.

Accept the homage of my regard.

JOHN B. DAVIDGE, M. D.

Professor of Anatomy, Surgery, &c. in the College of Medicine of Maryland.

Baltimore, Feb. 19, 1808.

Dr. James Ewell.

DEAR SIR,

We have perused your "*Medical Companion*" with much satisfaction, and strongly recommend it to the attention of those families who cannot with convenience procure medical aid. We think it the best publication we have ever read on the domestic treatment of diseases, more especially as it regards those of our climate.

We are very respectfully, sir, your most obedient servants,

BROWN & MACKENZIE

Baltimore, March 4, 1808.

Dr. James Ewell.

SIR,

I have read your book on Domestic Medicine with pleasure. The practice recommended in it is judicious, and being from the pen of a native physician, has great advantage over the publications of European authors.

JOHN SHAW, M. D.

Professor of Chemistry in the College of Medicine of Maryland.

Dr. James Ewell.

Charleston, May 7, 1808.

DEAR SIR,

Your "*Medical Companion*" contains much useful knowledge in a small compass, and is particularly adapted to these states. Families remote from medical aid, will find their account in possessing a book which describes diseases so plainly, and prescribes for them so judiciously, as bid fair to save valuable lives, which otherwise might be lost.

Your most obedient servant,

DAVID RAMSAY, M. D.

Dr. James Ewell.

Charleston, S. C. May 12, 1808.

DEAR SIR,

The perusal of your "*Medical Companion*" has given me the greatest satisfaction. Such a publication has been much wanted, and I think the plan and execution of your work must answer the most valuable purposes.

Yours very truly,

ALEX. BARRON, M. D.

Dr. James Ewell.

Charleston, May 14, 1808.

DEAR SIR,

I have, with great pleasure, perused your "*Family Physician.*" I find it to be a well digested compend of the most modern and approved modes of treating diseases, especially those to which our country is most exposed.—You have subjoined a dispensatory, judiciously calculated to obviate those errors which too frequently ensue from the exhibition of medicine, where the aid of the practitioner cannot be obtained.

Yours, &c.

PHILIP G. PRIOLEAU.

Dr. James Ewell.

Washington, March 1, 1808.

SIR,

I return you my thanks for the copy of "*The Medical Companion*" you have been so kind as to send me, and must particularly express my sense of the favourable sentiments expressed towards me in the beginning of the work; especially too, where it recalls to my recollection the memory of your respectable father, who was the friend and companion of my youth, and for whom I retained through life an affectionate attachment. The plan of your work is certainly excellent, and its execution, as far as I am a judge, worthy of the plan. It brings within a moderate compass whatever is useful, levels it to ordinary comprehension, and as a manual, will be a valuable possession to every family.

I pray you accept my salutations and assurances of esteem and respect.

TH. JEFFERSON.

Dr. Ewell.

Washington, July 3, 1819.

SIR,

I had the honour to thank you *viva voce* after my having received your book, I owe you new thanks after perusing it.

Such a work would be useful, very useful, in every country, but it may be said it is necessary in the United States, and you have acquired true titles to the gratitude of your fellow-citizens, and specially that of the families who happen to be distant from medical aid, by pointing them out the surest and, at the same time, the simplest rules to be followed in case of sickness.

I, above all, offer up my prayers, that your wise hints to ladies may not be laid aside, and that mothers of families impress them into their minds.

Consumption, that inexorable enemy of youth and beauty, is indeed, in most instances, but the mournful result of an imprudent fashion, and it cannot be too often repeated to young ladies who do not fear to show themselves at assemblies in winter, in light dresses, that which a great physician answered to one of his friends who told him, I am well, I have only got a cold: "*Colds, said he, take away more people than the plague.*"

Agree, Sir, with my sincere acknowledgments, the assurance of my truly distinguished consideration.

G. HYDE DE NEUVILLE.

Dr. James Ewell.

The following Review is from that celebrated work, the New York Medical Repository.

Manuals of health, or popular publications on medicine, have become so frequent as to have excited the censure of some grave and oracular members of the profession. They consider their publish-ing brethren as unnecessarily divulging the arcana of the art, as depreciating its credit and estimation, and as teaching the common massof readers to know as much as themselves. This communicative disposition they conceive to be carried to a very faulty extreme. For when the secrets of the healing faculty are promulgated by its members, with such consummate knowledge and success, what is left for distinguishing the regularly initiated from those who are without the pale? The propagation of the Esculapian mysteries is viewed to be faulty on another account; in as much as in diminishing the importance, it lessens the profits of the practisers, and thus, for the gratification and emolument of one tell-tale author, the whole fraternity is disparaged.

Let us, however, do justice to those sons of physic who are thus accused of faithlessness, in uttering abroad those matters which ought to be viewed as under the restriction of closed doors. Contrast their conduct with that of another class of medical personages, who forever deal in nostrums, and are incessantly boasting of their wonder-working powers; who assure the credulous world they can cure every possible disease of mind and body; but with a cunning equal to their effrontery, permit no mortal to become acquainted with their remedies. Compare the conduct of him who withholds nothing from his fellow citizens, with that of him who keeps every thing to himself. There can scarcely be a stronger exhibition of generous communication on the one part, and of selfish concealment on the other. Whatever may be pleaded in behalf of the persons who refuse to make a magnanimous publication for the good of mankind, of such valuable means of cure as they may possess, or who secure the profits of them under the statute of patents, there certainly is a character of greater disinterestedness and philanthropy, and a temper of a brighter mould and finish in him, who, without fee or price, offers to his fellow creatures all he knows that will be beneficial to them.

We know it has been said, that a smattering in the knowledge of the animal economy, and of diseases, multiplies the number of patients, and encourages the practice of physic. Books on such subjects, addressed to the people at large, are peculiarly calculated to alarm their fears whenever they are unwell, and therefore, impel them to seek assistance from those on whose skill they rely. It has been surmised too, that the disciples of Buchan, Willich, and their coadjutors, have often been led, from superficial and conceited knowledge, to become prescribers to others, and have, by their blunders, rendered the attendance of the regular physician more needful than ever. Hence it has been argued, that publications of this kind fail to promote the plausible object of their composition, and in reality, produce a mischievous, and not a beneficial effect. It has even been urged against them, that they are of no service to any person but the writer, who may diffuse his fame and increase his wealth in proportion to the circulation of his book and the consequent disturbance it works in society.

Whatever may be the merits of this controversy among those who are toiling night and day in the service of the infirm and disabled, or in the compilation of volumes, for our own parts, as reviewers, we feel favourable to the general distribution of knowledge. We are not attached to monopolies of any kind, and less than any, to that which confines to a particular order, the information which will teach man how to prevent sickness and pain, and to remove these ills when they invade. He who publishes wholesome precepts and directions, cannot be denied the merit of good intention; and it would be hard to refuse him the additional credit of having done substantial good to those who have followed his advice. Having indulged these prefatory reflections, we advance to the consideration of the work before us.

The author has prefixed to it a dedication to the President of the United States, a preface explanatory of his design, and a number of recommendatory epistles from his friends. Then follows a chapter of preliminary observations, of which we were inclined to offer an extract for the gratification of our readers; but our limits forbade.

The body of the work is devoted to the consideration of the principal diseases which assail the human frame at different times of life. They begin with fevers, and end with rickets; without, however, observing any strict method or nosological arrangement. Each section stands by itself, and has little or no connexion with the preceding or subsequent matter.—But a table of contents and index are two good keys to the subjects discussed.

The diseases are severally considered in short and generally appropriate terms. After a definition, the observations are mostly comprised under the head of *symptoms*, *causes*, *treatment*, and *regimen;* to which, in some instances, are added paragraphs on *prevention.* And it is but justice to observe, that the author has manifested a careful and discriminating mind in condensing so much valuable instruction into such a moderate compass. The sententious and, at the same time, intelligible manner of conveying his directions, is at once calculated to give the reader a clear idea of his meaning, and favourable opinion of his understanding.

Besides the observations that are strictly medical, the work contains a variety of directions upon surgical subjects.

To render his compilation more generally useful and acceptable, the author has annexed to it a dispensatory. This consists of two parts: the first comprehends a table of medicines for family use, with their doses and qualities annexed; and the second contains a collection of recipes for the principal part of the compound medicines recommended in the course of the work. And this part of the publication is executed in a manner that justifies the opinion we hinted before, of Dr. Ewell's sagacity and skill.

TO HIS EXCELLENCY

THOMAS JEFFERSON,

PRESIDENT OF THE UNITED STATES.

I BEG leave to present this Book to Mr. Jefferson, not because he is President of 1807, but because he was the patriot of 1776, and still more, because, through the whole of a long and glorious life, he has been the philosopher and friend of his country: with all the ingenuity of the former, exposing the misrepresentations of illiberal foreigners; and with all the ardour of the latter, fanning the fire of American science, and watering the roots of that sacred olive which sheds her peaceful blessings over our land.

To whom, then, with equal propriety, could I dedicate a Book, designed at least, to promote health and longevity? And to whom am I so bound by the tenderest ties of affection and gratitude, as to Mr. Jefferson? The early classmate and constant friend of my deceased father, and instrumentally the author of my acquaintance with the first characters in the state of Georgia; among whom, with peculiar pleasure, I would mention the honourable names of Milledge, Troup, Bullock, and Flournoy.

That you may long direct the councils of a united and wise people, steadily pursuing health, peace, and competence, the main pillars of individual and national happiness, is the fervent prayer, of your Excellency's much Obliged and

Very grateful servant,

JAMES EWELL.

TO

GEN. ANDREW JACKSON.

At a period like the present, when party zeal is manifested in all the operations of our Government, I know of no person to whom I can dedicate, with greater propriety, this humble testimony of my devotion and respect, than to the distinguished individual, whose high and attractive qualities, of head and heart, have subdued all claſses into veneration and esteem, and evinced that, in peace as well as in war, he may be safely entrusted in the discharge of the highest duties of his country. Whatever, in the slightest degree, advances public good, or individual happineſs, cannot be looked upon with indifference by such a person. Those quick and brilliant endowments which, in the darkest hours of danger and dismay, cheered every heart and lighted the path to victory, are neither weakened in their influence, nor diminished in their strength, by the mild ascendency of the halcyon days of peace. The needle is ever true to the pole; the patriot is ever true to the people; and he whose life, whose fortune, whose all, has been devoted to their cause, from the period of our revolution to the present day, and whose services entitle him to the appellation of the second father of his country, will not be forgotten, nor neglected by those, in whose sovereignty dwells the dispensation of power and the reward of honor.

That your life and health may be preserved, and your usefulneſs continued to your country, is the sincere and fervent wish of

Your obedient and devoted servant,

James Ewell.

Washington, August 1827.

PREFACE.

ON the important subject of domestic medicine, many books have been written, which, though excellent in other respects, have greatly failed of usefulness to AMERICANS; because they treat of diseases which, existing in very *foreign climates and constitutions*, must widely differ from ours. The book now offered to the public has, therefore, the great advantage of having been written by a native American, of long and successful practice in the southern states, and who, for years past, has turned much of his attention to the composition of it.

The professed object of this book is to treat in the most clear and concise manner, almost every disease to which the human body is subject, to give their common names and surest symptoms, to point out the causes whence they originate, and the most approved method of treatment—and, lastly, to prescribe the suitable regimen and means of prevention.

A publication like this cannot but be exceedingly useful to all, but especially to those who live in the country, or who go to sea, where regular and timely assistance cannot always be obtained.

Among the many and great services, to be rendered by such a book, we may fairly state its tendency to prevent that dangerous officiousness of ignorant persons, and, that equally pernicious neglect of the patient, at the onset of the disease, whereby so many lives are lost. These, with many other evils resulting from the want of such a work, constituted the motives which first led the author to offer this publication to his countrymen. It is not for him to determine, whether it be happily executed or not; but, whatever may be the general opinion as to its merit, he has the high satisfaction to know, that it not only flows from the purest motives, but also contains a faithful relation of facts, collected principally from his own experience, and, in part, selected from authors of the greatest celebrity.

He has not hesitated, occasionally, to use the language of his favourite authors, where he found it sufficiently clear and familiar for his purpose; and he hopes this acknowledgment will be received in place of frequent reference and quotation.

The reader will find, in the latter part of the work, a table of such medicines most commonly called for in families, with an adaption of the doses to the age of the patient, together with directions to prepare and administer them. And as it is impossible entirely to banish technical phrases when writing on medicine, the reader is presented with a *Glossary*, explaining the medical and scientific terms unavoidably employd in this work.

The Author, animated by the extraordinary success of the "MEDICAL COMPANION," has greatly improved and enlarged it, by a synopsis of the anatomy and physiology of the human body; essays on air, food, exercise, sleep, evacuations, and passions; and a Materia Medica.

Thus improved, the MEDICAL COMPANION not only treats of the art of preserving health, and curing disease, but also inculcates a familiar knowledge of the human system, in all its parts, and the laws that govern its economy. It is obvious, that by due attention to the non-naturals, by which is to be understood the means of *preserving* health, we may go far to protect this fabric from injury or disease. To inculcate this truth more universally and successively, the disquisitions contained in this work, are enlivened with appropriate illustrations, calculated to make impressions on the mind of the reader, as lasting as they are important.

Not the least valuable portion of this work is the MATERIA MEDICA, pointing out those precious simples wherewith God has graciously stored our meadows, fields, and woods, for the healing of our diseases, and rendering us happily independent of foreign medicines, which, while they are sometimes hard to be obtained, are frequently adulterated, and always costly.

To conclude—The author having added much new and important matter to this *seventh* edition, it will, unquestionably, be found much more valuable than any of the former; because, he has laboured to correct in this, all the errors and imperfections that have hitherto appeared, has enlarged upon the treatment of most diseases, and has introduced several others, particularly that scourge of the South and West, the malignant fever, sometimes denominated the Cold Plague, which were not previously noticed, though highly important to be well known and understood.

In the present state of the science of medicine, daily improving by experience, and adding rapidly to the number of valuable remedies, he felt it incumbent upon him to enlarge considerably on the treatment of the diseases generally, as well as to make other additions, which a work of this nature required, in order to its increased usefulness.

In a familiar style he has pointed out the *modus operandi* of the different remedies; has given the prognostics of diseases; has noticed more particularly the circumstances whence the disorders originate, for the purpose of guarding against occurrences; has distinguished those cases which yield readily to the employment of simple means, from those which require the regular attendance of a medical practitioner; and has detailed the means for checking or retarding the progress of such cases.

On the management and diseases of women, he has endeavoured, with the aid of the most distinguished authors on this subject, to give such a description of the complaints to which they are liable, with instructions for their treatment, plain enough, to be understood by the attendants or the patients themselves; and which he sincerely hopes will in a measure have the tendency to correct the errors and misconduct of unskilful midwives, and to prevent unnecessary interference in young practitioners. To all which has been added a general sketch of the diseases of infancy and childhood.

With a view of correcting the gross errors of nurses, whereby so many valuable lives have been lost, there is introduced the "Nurse's Guide," describing the preparations of such aliments as are most proper for the sick, which, as a family assistant, will unquestionably be a valuable acquisition.

Desirous that nothing should be omitted, which would in the least add to the value of the work, he has greatly improved the Dispensatory; which is now arranged in a manner that will not in the least perplex the reader; having endeavoured to render each formula or prescription, as concise and clear as possible, both as to the mode of preparing and the intention of employing it by short practical remarks under each class or head.

He has likewise given a detailed Index, so that in all cases of disease, the reader may be directed without trouble or embarrassment to the appropriate remedies. And that the bulk of the volume might not be too large, he has expunged many of the illustrations under the head of Hygieine, being of little importance compared with the matter now introduced.

The author cannot but think a work of this nature will be exceedingly useful to the student, whose theoretical knowledge has only prepared him to commence the arduous duties of his profession; for, it will not be denied, that the most experienced practitioner occasionally feels the want of a guide in his practice. It is worthy to be noticed, when the first edition of the Medical Companion was presented to the public, Professor Barton, with his usual liberality and philanthropy, enjoined upon his pupils to procure a copy of the work before they entered upon the duties of their profession, observing at the same time, that he himself had profited by it in practice, by refreshing his memory of what he had read in more voluminous works.

To every family, more especially those in remote situations, the possession of this book must unquestionably, be of incalculable value; for, conducted by such a guide, it will not be presumptuous to say that any person of tolerable capacity, and reasonable attention, may be enabled to practise with safety and advantage, in those cases of simple diseases most incident to our climate.

How far the Author has accomplished his wishes in these important respects the reader is left to judge from the high testimonials, prefixed to the work, from some of the most distinguished physicians in our country.

He will only add, from the time and attention he has devoted, in making the improvements now introduced, he cannot but flatter himself, the "Medical Companion" will not fail to be acceptable to his fellow-citizens; and under this pleasing impression, he submits it to their generous patronage.

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PRELIMINARY OBSERVATIONS.

CONTEMPLATING the numberless diseases to which man is liable, and which may cause him to drag out a protracted life of distress, or suddenly cut him off in the bloom of his existence, and amidst his usefulness, we must adore the Divine excellence which has given us in *medicine* the means of counteracting their dreadful effects.

As might have been expected, the attention to an art, rising in importance over all others, has ever kept pace with the general progress of intellectual improvement, commanding for it the respect and encouragement of every enlightened people.

With the Greeks, especially, the wisest and most polished of all the ancient nations, medicine was held in the highest estimation. Its votaries were cherished and revered by them while living, and in some instances, carrying their enthusiasm so far as to deify them after death. It is not indeed easy to conceive a more noble character, than a great and amiable practitioner of medicine, who has expanded his mind to the utmost extent by the brilliant attainments of science, and mellowed the dispositions of his heart by the habitual exercise of benevolence towards the afflicted objects of his care. How exemplary are Physicians of this description! Such was Hippocrates, the father of medicine. Such was the pious, the enlightened Sydenham. Such was the benevolent Jones, of Savannah. Such was the enlightened Rush: and such are many others who have emulated their virtues and rivalled their fame; among whom, I have the high satisfaction to enumerate of my particular friends, the late Drs. Craik, of Alexandria, Weems, of Georgetown, Stevenson, of Baltimore, and Dr. Chapman, of Philapelphia.

But unhappily, all those who profess our art do not resemble those bright examples. Medicine, more than any other good thing, is subject to abuse and debasement, by the sordid and mischievous "tricks and devices" of empiricism. Like noxious weeds *impostors* rise up at first, from the rank soil of their own effrontery; but they owe much of their subsequent growth to the protection which they derive from the want of that information widely diffused, which would at once detect, and "laugh into scorn" their idle claims, and arraign to conviction their dangerous tendencies. They live but by tolerance. The slightest examination of their pretensions would drive the herd into their holes and hiding places, and consign their *widely sdread fame* to utter oblivion.

It is strange, that so little popular curiosity prevails with regard to medicine, particularly when the public mind is so actively alive to subjects certainly of less moment. Talk to the generality of mankind about property, and you would suppose they were all lawyers, they reason so sensibly on the various points of *meum et tuum:* but touch them about that which is of more worth than all property, I mean health, and they are silent as mutes. Did not experience evince the fact, we should think it impossible that in things of such high concern, men could be so preposterously deceived! so careful of the dross, and yet so negligent of the gold.

What can be more deeply interesting than the investigation of that beautiful organization which has, emphatically, been pronounced "God's master work?" What more important than acquiring the knowledge of preserving this admirable mechanism? And what more pleasant and useful than to investigate the medical plants of our extensive country, whereby we may remedy those painful maladies which assail the human frame?

Half the attention and the time devoted to the minor politics arising out of our party dissensions, assisted by very little of that overboiling zeal given to the acquisition of property, would, if appropriated to medical studies, enable any person of tolerable capacity to practise with safety and advantage in those cases of simple disease which are most common to our climate, and to determine between the "arrant quack" and the modest, well-educated, and judicious physician.

Assuredly, some care might be profitably directed to medicine. Why will not the intelligent citizens who are scattered throughout the country, dedicate a part of their "liberal leisure" to it? Of all the sciences it is the most inviting, and that which opens the largest treasures to its cultivators. No one can lend his mind to it without receiving "usurious interest." Medicine is the digest of human knowledge. It is the great reservoir into which every stream of science pours its tribute, which in return spreads its fertilizing water over every field that brings forth its "ripe and abundant harvest."

The want of a popular medical education, we have remarked, promotes the success of empirics. To what else can the amazing increase of these creatures be ascribed? Would they dare to quit the shades of their native insignificance, if they thought they were to encounter the blaze of criticism, or to be inspected and scrutinized by the torch of truth? No: the terrors of such a process, were it practised, would exterminate the race, or leave to them only a "beggarly account of empty boxes."

We repeat, that empirics are nurtured and sustained exclusively by the prejudices of mankind in their favour, arising from their inability to judge rightly of their merits. For, can it be presumed that any one acquainted with the subject, would repose the slightest confidence in the *nostrums* of the most stupid, illiterate, dishonest, and vagrant of society, who are confessedly destitute of even the elements, the mere alphabet of medicine.

Who can believe, that these *nostrums*, as generally asserted by their proprietors, are applicable equally to a variety of diseases, opposite to each other as the poles, and that too, under every difference of age, constitution, temperament, habit, season, and climate?

Is it to be credited, that skill can be possessed in a profession the most complex, without any preparatory devotion to it? Reason and experience combine to assert the impossibility.

The powers of eloquence or poetry may be an inheritance; but medicine is not intuitive. Whoever acquires it, that is, *that thorough knowledge of it, which confers "surpassing skill,"* must undergo a slow, toilsome and arduous probation.

Its temple is raised on the summit of the loftiest eminence, and the path which leads to it winds in tedious tortuosity, narrow, intricate, and perplexed; but strewed, at its different stages, with flowers to tempt, and hung at its termination with fruits to reward. Few, very few, have ever reached it. The majority of those who set out on the enterprise become soon discouraged, and either linger by the way, or are lost in its mazes.

The energies of genius, assisted by unwearied diligence, can only hope to surmount the difficulties and to gain the prize.

But candour must still allow that the empiric strengthens, in some degree, his credit with the public, by sometimes performing great and imposing cures. Such instances, however, of occasional success, bring with them no solid claims to confidence. They are indeed calculated to excite distrust when properly viewed. Their cures, which are admitted to be few are alone registered and promulgated. Nothing is ever said of the failures or *the deaths produced*. No regular and *impartial* account is kept, nor any striking adjustment of balances: but, what must be the fatality of a practice conducted in a way so rash and indiscriminate, without the guide of either principle or experience? The nostrums employed are uniformly composed of ingredients of the greatest activity, principally of the *mineral poisons*, as *arsenic*, *corrosive sublimate*, *calomel*, &c. and which can never be neutral in their operations. Whenever administered they assume a side in the pending contest, and exert all their might either for the patient or the disease, till one or the other yields.

The preceding is a faithful picture of empiricism—of its swaggering pretensions, of its danger, and its uncertainties; a plain and unvarnished tale, in which naught is extenuate or set down in malice.

But with the too prevalent inclination for nostrums, we regret the strange aversion that exists, and which proceeds from the same neglect of medicine, to some of the most efficacious remedies. *Tartar* is denounced as a certain *destroyer of the stomach; mercury*, because it *lodges in the bones; arsenic*, as rancorously poisonous, &c. &c. Thus are those powerful and salutary agents, when in the hands of a judicious physician, stigmatised by the false views of vulgar prejudice. It has been wisely and truly declared by high authority, "that all medicines in *large doses* are *poisons*, and that *poisons* in *small doses* are the best medicines." This is no paradox. The efficacy of a remedy must be proportioned to its force, provided it be administered with discretion, and its operation properly restrained. On the contrary, the weakest medicine becomes poisonous when given in an undue quantity.

In the use of medicines we should be careful to adapt them to the nature of the disease, and the condition of the patient's system at the time, for the salutary properties of a remedy are not positive, but entirely relative to the peculiar circumstances of the case.

A remedy, therefore, may do harm, or prove beneficial, according to the degree of judgment exercised in its employment. This position might easily be illustrated and enforced by a variety of examples. We shall mention, however, only a few most pertinent.

What then is more sanative in its effects than the Peruvian bark in the treatment of intermittent fever, or gangrene; or more deleterious if given in an excited system? Where is there a readier *cleanser* of a foul stomach than emetics? yet in inflammations of that organ, nothing would prove so pernicious. The same remark applies to cathartics, "nature's scavengers of a gorged alimentary canal."

With regard to our lancet: what could we do without it? How quell those dreadful insurrections of acute disease which every where ravage our country? But indispensable as it is in such cases, yet there is, perhaps, no remedy, which is more mischievous when wrongly applied.

Who has not experienced the soothing restorative operation of opium, that divine medicine, which has not with too much force been called, "*magnum Dei donum*," *the great gift of God;* and who has not known its demonical influence when imprudently employed?

In this way we might proceed through every class of the Materia Medica, deriving proofs to fortify our statement, and to warn us of the danger of abusing remedies. Enough, however, has been said. We trust the admonition will not be neglected.

To apply, as we have indicated, the various medicines of which we are possessed, is the secret of successful practice, and constitutes the wide difference between the discriminating physician and empiric.

The practice of the one is governed by principles slowly and cautiously deduced from the contributions of long experience and diversified observations; that of the other is the result of daring experiment, sanctioned only by the chances and calculations of the lottery. In the revolutions of the wheel, and amidst a thousand *blanks*, a prize may come out! Thus, an important cure by an empiric, like an enormous prize, seizes public attention, and is sounded abroad by the "clarion of fame," while the evidence of the *murderous* practice, like the blanks of the lottery, is hushed in silence or buried in forgetfulness.

It may be proper to observe here, that, in using all active medicines, we should begin with the smallest doses, increasing them gradually, until the quantity suited to the strength of the constitution be discovered. For there are instances of constitutions on which one-fourth, and even one-tenth, of what would not affect others, will act powerfully.

As the system speedily accommodates itself to the action of medicines, we should never continue one medicine too long at a time. When we find it is losing its efficacy, it should be changed for some other of the same class, and after a short interval the patient may, if he choose, return to his first medicine. By thus varying the remedies, as the system becomes accustomed to their action, we shall be enabled to cure diseases which otherwise would not have yielded; as obstinate intermittents, wherein I have frequently employed the bark without effect: but on changing it for either the solution of arsenic, or vitriolic pills, *a cure has generally taken place, and when it did not, by exciting a slight mercurial action in the system and immediately following it with one or the other of the above medicines, I have pretty constantly succeeded. On this account medicines should never be made too free with, as preventives of disease, unless there be evidently a morbid predisposition lurking in the system: for, by thus wantonly familiarising ourselves to medicine when there exists no necessity for it, we shall stand a very good chance to be disappointed of its proper effects, in the season of our need.

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* Vid. Dispensatory.

Bitters, those especially made with spirits, like other cordials, have no doubt their use at times, as in damp weather, which hangs so heavily on the springs of life: but to use *them*, or *mint slings*, or *drams*, as some do every morning, even the *brightest*, when dumb nature herself is smiling, and every bird and beast are uttering their artless joy, is a species of suicide. It is a most wicked attempt to substitute artificial joys in place of those most pure and natural. Such an impious fighting against God and Nature, generally ends as might be expected. The wretched self destroyers seldom live out half their days. For the same delightful exhilaration, produced by one *antifogmatic* last year, requires two this year, and in that increase, till the habit of intemperate drinking is confirmed. How melancholy is it that rational beings should act so madly, and that the all bountiful Creator cannot intrust us with his good things, without our shameful abuse of them! Thus it is, that men turn into poisons those pleasant beverages given for cordials, to raise their depressed spirits, to invigorate their flaccid nerves, and to enable nature to repel the various attacks of a humid or infected atmosphere.

Among the many remedies of disease, none perhaps holds a higher place than the bath, in its different forms. The *cold bath*, by its sudden shock, is peculiarly fitted to invigorate the system, and to re-animate its circulations and secretions. Hence its acknowledged reputation in all cases of weak and relaxed habits, particularly those of the studious and sedentary.

It ought however to be remembered, that, like every other remedy, it belongs but to one set of diseases. In affections of the viscera, obstructions and inflammations, it is hurtful. If after leaving the bath, the patient do not feel a kindly glow on the surface, he has good cause to fear that the angel of health was not there before him "*to move the waters.*" On going into the plunging bath, as it is called, it were better to dash in at once head foremost. The shock in this way is more instantaneous, and the distribution of the blood more salutary than when it is driven, as by wetting the feet first, from the extremities to the head. It is on this principle that the *shower bath* possesses advantages superior to the *plunging*. Immediately on coming out of the bath the body should be rubbed dry with flannel or coarse cloths, and moderate exercise taken.

Besides the advantages of frequent cold bathing, its partial use is no less salutary in all cases of local action. In periodical headache, and indeed in most complaints of the head, the affusion of cold water, though a simple, is a very effectual remedy.

If persons subject to the quinsy and sore throat, instead of muffling their necks, would bathe them two or three times a day in cold water, they would find their account in it. When the healthy resort to the cold bath, on account of its purifying and pleasant effects, they may continue in it for some time: but to strengthen and give elasticity to the solids, every thing depends upon the sudden shock.—The time of day for bathing is a matter of indifference, provided it be not immediately after a full meal, or when the body is warm and in a state of free perspiration.

The *warm* bath, about the temperature of the blood, has nearly all the advantages of the cold bath, without being liable to so many objections. Some indeed tell us, that it weakens the body, but so far from doing so, it may justly be considered as one of the most powerful and universal restoratives with which we are acquainted. Instead of heating, it cools the body, diminishes the pulse, and takes off its unnatural quickness, according to the length of time the bath is continued. Hence, tepid baths are of great service, when the body has been overheated, from whatever cause, whether by severe bodily or mental exercise. In all these cases, its happily composing and recuperative virtues seem to be owing to its tendency to promote perspiration, and to relax spasm.

Warm bathing can hardly be sufficiently commended, for its sovereign effects in promoting cleanliness, and consequently for curing all diseases of obstructed perspiration from foul skin.

It is much to be lamented that so many poor children should become the victims of their parents' laziness, and neglect of the most sweet and healthful virtue, *cleanliness*. For would they devote a little of their mispent time, and money, to the more decent clothing and frequent washing of their children, there could be no doubt that the little *innocents* would enjoy ten thousand times more comfort than they can possibly have while covered with filth, and tortured with scald heads, blotches, itch, and vermin. In fine, having seen the fatal termination of so many diseases, in my opinion easily curable by the bath, I cannot dismiss this important subject without earnestly recommending it to every gentleman to provide for his family the convenience of bathing, as not only one of the greatest luxuries, but the best preservatives of health in these warm climates.

It is essential to health, luxuriously, to refresh the person by bathing and washing off the impurities of the skin; and equal care should be taken to remove all filth out of the chambers of the sick, and frequently to change their linen and bed-clothes, which, when saturated with fœtid perspirable matter, must prove extremely unpleasant and hurtful to the patient.

And here I cannot but breathe the most fervent wish that the agriculturists of the south and west would be persuaded to insist more rigorously on cleanliness in the persons of their *slaves*. That the constitution of the African is more firm than ours, and better fitted to sustain the toils of warm climates, is very certain; but it is equally true that his daily labours, with the sudden changes of weather, often put his constitution, good as it may be, to trials which loudly call for every aid that humanity can possibly afford him. Of these aids, next to plenty of wholesome food, cleanliness is one of the greatest. It is, indeed, a medicine both of body and mind. The poorest slave, however degraded his condition may be, has still left a portion of mind, which can never be totally insensible to his outward appearance. Cover him with rags and filth, and you not only injure his body by obstructing perspiration and corrupting the fluids, but you attack him in his *mind*. Knowing that he appears vile and loathsome to others, he becomes much more so to himself; and this idea embitters reflection, depresses his spirits, and in conjunction with other causes, often brings on diseases which press him to an untimely grave. Whereas, by ordering him frequently to bathe, and by affording him three changes of apparel, of which one might always be clean, he would be greatly refreshed and comforted, both in mind and body. Thinking his appearance decent in the eyes of others, he becomes well pleased with himself, and looking on his *new habit*, however *cheap* and *simple*, as an evidence of his master's affection and value for him, he feels at once the touch of an honest pride in himself, and of friendship for his master, which lightens his task and sweetens all his toils.

But, if cleanliness be of such importance to the healthful, how much more so to the sick slave. When sinking under the heat and burden of his labours, can it be good policy to suffer him to be put, like a mere animal, into a narrow dirty cabin; there left, with scarcely a child to hand him "*a cup of cold water*," with no food but dry bread, and breathing the fœtid atmosphere of a sultry, filthy, habitation! In such circumstances, what but a miracle can save him from destruction?

Having been frequently an eye witness of such scenes, of which the owner himself was, perhaps, ignorant, I feel it my duty to advise him, not only for humanity, but interest sake, to erect for his slaves, especially if he have many, a cheap, coarse kind of building as an hospital. This building should be fixed on some spot, enjoying, in the highest degree, the double advantage of good water and air. It ought to consist of but one large room, quite open to the top, well aired by doors and windows, and with a plank floor, that it may be frequently washed and kept perfectly clean. Some good-tempered, notable, old woman of the family, should be appointed to attend the sick and supply the proper nourishment. In this cheap and simple way many a valuable slave might, we are certain, be saved to his owner, which alone were an ample reward, without counting the present comfort of such humanity, or the future blessings of Him, who has promised, that every act of love, even to the poorest slave, shall be remembered as if done to himself. To the truly wonderful effects of this regimen, embracing cleanliness, fresh air, good nursing and diet, I, myself, can bear the most public and unequivocal testimony.

In the year 1805, when the Summer and Autumnal fever raged with uncommon violence and mortality in Savannah, having considerable practice among the shipping, I was induced, chiefly from motives of humanity, to open a private hospital for seamen. And though I had usually from twenty to thirty patients during the sickly season, I lost but one of all who had been taken into the hospital at an early stage of the disease. This extraordinary success, I ascribe in a great measure to the virtues of the regimen above recommended. And in support of the plan recommended, I will venture to assert, that hardly an instance can be quoted, of the recovery of seamen, when left neglected, or badly attended, in the confined boarding-rooms, or steerages of the ships, where they were attacked.

The very happy result, of the little hospital system above stated, cannot but excite the most earnest wish for a similar establishment, in Savannah, on a much larger scale. Such an institution could not fail to prove a great blessing to the state, but more so to the town, where numbers of useful citizens, especially seamen, are annually swept off.

It affords me pleasure to state, that since the appearance of this friendly hint, in the first edition of this work, the humane citizens of Savannah, have actually established a public hospital, and have found it abundantly productive of the good effects predicted. Fortunate would it be, if similar institutions were erected in all our seaports. In addition to the softer whispers of *humanity*, gratitude now lifts her louder voice; for surely our gallant sailors, principally the objects of such hospitals, have given glorious proofs in the late awful contest, that they deserve every mark of attention that a great nation in the plenitude of munificence can bestow.

OF THE STRUCTURE

OF

THE HUMAN MACHINE.

How poor, how rich, how abject, how august;
How complicate, how wonderful is man!
How passing wonder He who made him such!
Who center'd in our make such strange extremes!
From different natures, marvellously mixed!
An heir of glory! a frail child of dust!
Helpless immortal! insect infinite!
A worm! a *God!*—I tremble at myself,
And in myself am lost. YOUNG.

"*I am fearfully and wonderfully made, O Lord,*" exclaimed David, on surveying the admirable mechanism of his own frame. Indeed, so complicated and curious is the structure of the human frame, that no person, who contemplates it, can possibly avoid joining with the pious Psalmist.

That illustrious physician of antiquity, Galen, is reported in his youth to have been a Sceptic, but on witnessing a dissection, and examining the mechanism of the human body, the divine wisdom and design running through all its parts, he was struck with such a sense of the great Architect, that he immediately became a convert, and during his life devoted himself to the worship of the Deity with all the fervour becoming an enlightened and grateful mind. Having himself happily caught the first spark of Divine light from a survey of this wonderful machine, he earnestly recommends to others the study of it as the noblest employment of the faculties, and one of the surest guides to rational devotion. His thoughts on this subject, though emanating from a heathen, are well worth the attention of all Christians.—"Those treatises," says he, "which display the excellencies of the great CREATOR, compose one of the noblest and most acceptable hymns. To acquaint ourselves with his sublime perfections, and point out to others his infinite POWER, his unerring WISDOM, and his boundless BENIGNITY—this is a more substantial act of devotion, than to slay hecatombs of victims at his altar, or kindle mountains of spices into incense."

Now, as one object of the "Medical Companion" is to treat of the art of preserving this divine piece of workmanship in a healthy state, nothing can impress us more forcibly than the absolute necessity of being made acquainted with its parts, and the laws that govern them, without some knowledge thereof, it appears no more possible to take the right care of it, or to keep it in good order, than to perpetuate the regular motion of a clock, or time-piece, without a familiar acquaintance with its mechanism.

The study of *Anatomy*, as it leads to the knowledge of NATURE, needs not, says the illustrious Cheselden, many tedious descriptions, nor minute dissections, what is most worth knowing being soonest learned, and least subject to difficulty; while dividing and describing the parts more than the knowledge of their uses requires, perplex the learners, and make the science tedious, dry, and difficult.

Upon this principle, the following anatomical description of the human body is conducted; and to render it perfectly intelligible to the uninformed readers, technical terms have, as much as possible, been avoided.

"When a master builder," says the celebrated Hervey, whose sublime sentiments on this theme are at once so elegant and appropriate, that I have taken the liberty frequently to use them, "undertakes to erect a magnificent edifice, he begins with the less decorated, but more solid parts, those which are to *support*, or to *contain* the rest." This order we will follow in considering the structure of the human frame.

The *Bones* are the hardest and most solid parts of the human machine, cast into a variety of moulds, enlarged or contracted into a variety of sizes, and calculated from their strength, to *support* the whole body. The manner of their articulation is truly admirable, and remarkably various; yet never varied without demonstrating some wise design and answering some valuable end. They contain marrow, which makes them less brittle, and are covered with a membrane, or thin substance like a bladder, called periosteum, except on the skull, where it is called pericranium, which is exquisitely sensible in an inflamed state, being plentifully supplied with nerves and blood-vessels. Its use is to sustain the vessels which enter the substance of the bones with their nourishment. The *head*, designed for the residence of the brain, is framed in exact conformity to this important purpose, ample to receive it; strong to uphold it; and firm to defend it.

The *Ribs*, turned into a regular arch, are gently moveable for the act of respiration. They form a secure lodgment for the lungs and the heart.

The *Back-bone* is intended not only to strengthen the body, and sustain its most capacious store-rooms; but also to bring down that appendage of the brain, which is usually termed Spinal marrow.

The *Arms*, pendent on either side, are so exactly proportioned to each other, that the equilibrium of the structure may not be disconcerted. These being the guards which defend, and the ministers which serve the whole body, are fitted for the most *diversified* and extensive operations; firm with bone, yet not weighty with flesh; and capable of performing with singular expedition and ease, all manner of useful motions. To these are annexed the *hands*, and all terminated by the *fingers*; which are not, like the arms, of the same length, and of equal bigness, but consisting of various little bones, and a multitude of muscles, what shape can they not assume? what service can they not perform?

The *Thighs* and *Legs* are alike substantial and stately columns; articulated in such a manner, that they administer most commodiously to the act of walking, yet obstruct not the easy posture of sitting. The legs swell out, towards the top, with a gentle projection; and are wrought off, towards the bottom, with neat diminutions. Which variation lessens their bulk, and at the same time increases their beauty.

The *Feet* compose the firmest and neatest pedestal; infinitely beyond all that statuary or architecture can accomplish; capable of altering their form, and extending their size, as different circumstances require. Besides performing the office of a pedestal, they contain a set of the neatest springs, which help to place the body in a variety of graceful attitudes, and qualify it for a multiplicity of advantageous motions. The undermost part of the heel, and the extremity of the sole, are shod with a tough, insensible, sinewy substance. This we may call a *natural sandal.* It never wears out, never wants repair; and always prevents that undue compression of the vessels, which the weight of the body, in walking or standing, might otherwise occasion.

While many animals creep on the ground, while all of them are prone in their posture or their aspect, the attitude of man is *erect*, by far the most *graceful*, with an air of dignity, and bespeaking superiority; and by far the most *commodious*, fitting us for the prosecution of every grand scheme, and facilitating the success of all our extensive designs. It is likewise attended with the greatest safety; being, if not less than any other position exposed to dangers, more happily contrived to repel or avoid them.

The *Cartilages* approach much to the nature of bones, being smooth and elastic. In them there is no sensible cavity to contain marrow, nor are they covered with any membrane to render them sensible as the bones are. They serve to make the bones, whose extremities they cover, move freely in their joints. They also contribute, in a great measure, to the formation of several parts, as the wind-pipe, nose, ears, and breast.

The *Ligaments* are tough, compact substances, more flexible than cartilages. They have no conspicuous cavities, neither have they any sensibility, lest they should suffer upon the motion of the joint. They serve to unite the several limbs, and prevent their parting from each other, as happen in dislocations.

The *Muscles* are distinct portions of soft, red, flesh, with strong tendinous heads and tails designed for insertion. They are composed of the slenderest fibres, yet indued with incredible strength; fashioned after a variety of patterns, but all in the highest taste for elegance, conveniency and usefulness. These, with their tendons annexed, constitute the instruments of motion. The former, contracting their substance, operate somewhat like the pulley in mechanics. The latter, resembling the cord are fastened to a bone, or some portion of flesh; and, following the muscular contraction, actuate the part into which they are inserted. This, and all their functions, they exercise, not like a sluggish beast of burden, but quick as lightning. A nerve or more in each muscle sets them at work, diffusing the power of sensation through the body, or, returning upon an impression from without, giving all needful intelligence to the soul; so that flesh and nerves are the principal constituents of a muscle. *Inwardly* they supply the several movements of the active machine: *Outwardly* they render its appearance plump, well proportioned, and graceful.

The strength of the *muscles* is astonishing in all persons, but especially in cases of frenzy, and in certain extraordinary characters, who, by the use of a few muscles only, will easily raise a weight much greater than that of their own bodies.

The *Tendons*, although much smaller than the body of the muscle, are composed of the same number of fibres. They are not capable of contraction, but serve like ropes to pull when the fleshy fibres act, for the commodiousness and firmness of insertion, and the direction of motion.

The use of the tendons is to avoid a large quantity of flesh near the joint, to prevent clumsiness in particular places, and for the better admitting of that friction, which, in less compact parts would have been injurious.

The *Nerves* are surprisingly minute, white cords, derived from the brain, running to every part of the body. They perform two distinct offices; conveying sensation from all parts of the body to the brain, and carrying the commands of the will from that seat to all the different parts of the body. Most of the muscles of the body producing motion are in the guidance of our will; some of them, however, entirely independent of it, as those of the heart and vessels which carry on the circulation of the blood;

and some are partly under the direction of our will, and partly independent of it, as in respiration.

But all the muscles, the involuntary, as well as the voluntary, are enabled to act only by their communication with the brain; for when that is cut off by the destruction of the connecting nerve, whatever impression is made on the part can no longer be felt; the orders of the will to that part can no longer be obeyed, and the part itself can no longer move.

The *Arteries* are strong elastic tubes, which arise from the heart, and thence, striking out, as they go into numberless smaller canals or branches, distribute the blood to every part of the body. These being wide at their origin, lessening as they branch themselves, check the rapid motion of the blood. To sustain this shock, they are indued with uncommon strength; by performing this service they oblige the crimson current to pass into the *narrowest defiles*, and distribute itself into all quarters. The blood thrown from the heart dilates the arteries, and their own elastic force contracts them; by which means they vibrate, in proper places, very perceivably against the finger; bring advices of the utmost importance to the physician; and very much assist him both in discovering the nature of diseases, and prescribing for their cures. The larger arteries, wherever the body is formed for bending, are situated on the bending side; lest, being stretched to an improper length by the inflection, their dimensions should be lessened, and the circulating fluid retarded. They are not, like several of the considerable veins, laid so near the surface as to be protrusive of the skin; but are deposited at a proper depth in the flesh. This situation renders them more secure from external injuries.

The *Veins* are tubes or vessels accompanying the arteries, and are appointed to receive the blood from their extremities, and reconvey it to the heart. Small at their rise, and enlarging as they advance, they are void of any pulsation. In these, the pressure of the circulating fluid is not near so forcible as in the arteries; for which reason their texture is considerably slighter. In many places they have valves, because the slow motion of the blood in the veins, and their weaker contractile power, unassisted by a force adequate to that of the heart, have great need of such an invention to insure its return to the heart.

The *Secretory vessels* are minute tubes in the different organs serving to separate and strain off the different fluids from the general mass of blood.

The *Excretory vessels*, tubes also belonging to the different organs, carry off the humours that are separated.

The *Glands*, commonly called Kernels, are small bodies of finely interwoven vessels, whose office it is to secrete or separate fluids from the blood for particular uses, as spittle in the mouth, bile in the liver, milk in the breast, &c. Glands, when obstructed, become large and indurated, from which scirrhus and cancers are produced.

The *Membranes* are thin tunicles or fine webs like a bladder, appointed to enwrap the fleshy parts; to form a connexion between some; to line the cavities, and make a separation between others.

The *Fibres* are simple threadlike bodies, serving to form other parts; hence some are very hard, as the boney ones; and others soft, as the fleshy parts.

The *Skin*, like a curious surtout, exactly fitted, envelopes the whole, formed of the most delicate net-work; whose meshes are minute, and whose threads are multiplied even to a prodigy.—The meshes are so *minute* that nothing discernible to the eye passes them; though they discharge every moment myriads of superfluous incumbrances from the body. The steam arising from the warm business transacted within, is carried off by these real, though imperceptible, funnels; which constitutes what we usually call *insensible perspiration*. A single grain of sand, according to Mr. Lewenhouk, will cover no less than one hundred and twenty-five thousand of these funnels, or what has been prettily styled "*cutaneous chimneys*." The threads are so multiplied, that the point of the smallest needle cannot pierce any single part without causing an uneasy sensation, and an effusion of blood; consequently without wounding, even by so small a puncture, both a nerve and a blood-vessel.

The outermost covering of the body is that soft whitish tegument which rises in the pustle of a blister, and is called scarf skin. The next, or *true skin*,* is that reddish and exquisitely tender part which appears when the blister is broken, and the dead skin taken off. The first is void of sense, and intended to screen the second, not only from the stroke of injuries, but even from the impressions of the air, which, mild as it may feel to the *sheathed*, would be too rough and sharp for the *naked* nerves.

The natural colour of the cuticle is white. The apparent black or brown colour in the African or Indian, is entirely owing to the mucuous substance under it.

The *skin* unites in itself two very essential functions. It is the organ of the sense of the *touch*, and the channel of perspiration. For this purpose, innumerable nerves and vessels are dispersed throughout the skin, which are in the continual act of feeling, and at the same time, of secreting and volatilizing noxious particles. It has been proved by accurate experiments, that the healthy individual daily and insensibly perspires upwards of three pounds weight of superfluous and impure humours. It may therefore, be confidently asserted, that no part of the body is provided with so many important organs, by which it is connected with almost every operation performed in animal life, as the skin. By this organization, we are placed in immediate connexion with the surrounding atmosphere, which particularly affects us through the skin, and exerts its influence on our health. We farther feel, directly through that medium, the qualities of the air, heat, cold, pressure, and rarefaction.

Important as the skin is to external life, it is no less so to the internal economy of the body, where it appears to be peculiarly designed to preserve the grand equilibrium of the different systems, by which the human frame is supported in its vital, animal and sexual functions. If any stagnation, accumulation, or irregularity arise in the fluids, the skin is the great and ever ready conductor, through which the superfluous particles are separated, the noxious volatilized, and the fluids, stagnating in their course, effectually attenuated; a canal being at the same time opened for the removal of those humours, which, if they could get access to the vital parts, such as the heart and brain, would cause inevitable destruction. By the proper exercise of this organ, many diseases may be suppressed in their early stages; and those which have already taken place, may be most effectually removed. No disease whatever can be healed without the co-operation of the skin. The nature and constitution of this organ most certainly determine either our hope or apprehension for the safety of the patient. In the most dangerous inflammatory diseases, when the prospect of recovery is gloomy, a beneficial change of the skin is the only effort by which nature, almost overcome, relieves herself, and ejects the poison in a surprising manner, frequently in the course of one night. The greatest art of a physician, indeed, consists in the proper management of this extensive organ, and in regulating its activity, where occasion requires. To mention only one circumstance; it is well known to those who have experienced the beneficial effects of a simple blister, that its stimulous, like a charm, has frequently relieved the most excruciating pains and spasms in the internal parts.

When the sensibility of the surface is impaired; when the myriads of orifices designed for the continual purification of our fluids, are obstructed, if not closed; when the subtle nervous texture is nearly deprived of its energy, so that it becomes an *impenetrable coat of mail*, is there any reason to wonder that we are so often harrassed by a sense of constraint and anxiety, and that this uneasiness, in many cases, terminates in gloom and melancholy? Ask the Hypocondriac, whether a certain degree of the cold, paleness, and spasmodic sensation in the skin, does not always precede his most violent fits of imbecility; and whether his feelings be not most comfortable when the surface of his body is vigorous, warm, and perspires freely? In short, the degrees of insensible perspiration are to him the surest barometer of his state of mind. If our skin be disorganized, the free inlets and outlets of the electric, magnetic, and other matters, which affect us at the change of the weather, are inactive.—Thus the origin of extreme sensibility, towards the various atmospheric revolutions, is no longer a mystery; for, in a healthy surface of the body, no inconvenience will follow from such changes. If we farther advert to those acrimonious fluids, which, in consequence of an imperfect state of perspiration, are retained in the body, and which affect the most sensible nerves and membranes, we shall the better comprehend how cramps and spasms, the torturing pains of the gout and rheumatism, and the great variety of cutaneous diseases, have of late become so obstinate and general. The just proportion of the fluids, and the circulation of the blood, are also determined, in no small degree, by the skin; so that, if these fluids become languid, the whole momentum of the blood is repelled towards the interior parts. Thus a continual plethora, or fulness of the blood, is occasioned; the head and breast are generally oppressed; and the external parts, especially the lower extremities, feel chilly and languid.

May we not infer, from what has been advanced, that the use of baths is too much neglected, and ought to be universally introduced?

Bathing is considered an excellent remedy for alleviating both mental and bodily affections. It is not merely a cleanser of the skin, enlivening and rendering it more fit for performing its offices; it also refreshes the mind, and spreads over the whole system a sensation of ease, activity, and pleasantness. It likewise removes stagnation in the larger, as well as in the smaller vessels, gives an uniform, free circulation to the blood, and preserves that wonderful harmony in our interior organs, on the disposition of which our health and comfort so much depend. A person fatigued or distressed in body and mind, will derive more refreshment from the luxury of a tepid bath, and may drown his disquietude in it more effectually, than by indulging in copious libations to Bacchus.

There subsists so intimate a relation between our interior and exterior vessels, that almost every error or irregularity in the organs within, shows itself first on the surface of the body, particularly on the face. How often are we struck with the countenance of a person who thinks himself in perfect health, but whose illness, the result of some morbid cause, concealed in the body, justifies, in a few days, the serious apprehensions we entertained at our last interview? Nature has wisely ordained, that the first appearance of internal irregularities should be indicated by the countenance; but to what do we generally apply this index? We refuse to avail ourselves of her beneficent intimation; and the continued use of pernicious substances, instead of promoting the object we have in view, ultimately tarnishes and impairs that beauty which we meant to adorn and preserve.

> The secret venom circling in her veins,
> Works through her skin, and bursts in bloating stains,
> Her cheeks their freshness lose, and wonted grace,
> And an unusual paleness spreads her face. GRANVILLE.

We imagine it in our power to improve the skin, without attending to the purity of the fluids, though it is indebted to them for its very existence; and yet we should smile at a person, who should attempt to cleanse an impure tongue by constantly scraping it, when a disordered stomach was the real cause of that impurity.

The *Cellular Membrane*, so called from its numerous cells, adheres very closely to the skin, running between the muscles in general, and between their several fibres in particular; and communicating with the membrane which lines the inside of the breast and belly. All its cells communicate with each other throughout the whole body, so that from any one part the whole may be filled with air, as is evident in beasts, from the butchers blowing up their lean meat with air when newly killed, and in emphysema, where the air from a broken rib, getting into one of the cells, forces its way into all the rest, distending the body to a frightful size; as also, in general dropsy, wherein all the cells, filled with water, may, by puncture, be emptied in the course of a night. In health this membrane is filled with an oily substance, giving an agreeable rotundity to the limbs. It is also the seat of biles, and contributes to keep the inner parts warm and pliant; and, by filling the interstices of the muscles, renders the surface of the body smooth and plump.

The *Head*, that majestic dome, being the seat of the brain, in which the soul is supposed to reside, resembles the *General's* tent in an army, or the *Monarch's* in a city. It has a communication established with all, even the most remote parts of the system; having outlets and avenues, for the ready despatch of couriers to all quarters, and for the reception of speedy intelligence on every interesting occasion. It is furnished with lodgments wherein to post sentinels of various characters, and appoint to various offices, to expedite their operations, whether employed in reconnoitering what passes *without*, or examining what claims admittance *within*. The whole turns upon a curious pivot, most nicely contrived to afford the largest and freest circumvolutions. This stately capitol is screened from heat, defended from cold, and, at the same time, beautified by a copious growth of hair.

The GREAT CREATOR, profusely gracious to mankind, has made us an inestimable present of the SENSES to be the inlets of innumerable pleasures, and the means of administering the most valuable comforts. High in the head, bright and conspicuous as a star in the brow of evening, is placed the *eye*. In this elevated situation, like a centinel posted in his watch tower, it commands the most enlarged prospect. Consisting only of simple fluids, enclosed in thin tunicles, it conveys to our apprehension all the graces of blooming nature, and all the glories of the visible Heavens. How prodigiously wonderful, that an image of the highest mountains, and a transcript of the most diversified landscapes, shall enter the small circlet of the pupil! How surprisingly artful, that the rays of light, like an inimitable pencil, should paint on the optic nerves, paint in an instant of time, paint in the *truest* colours, and *exactest* lineaments, every species of external objects.

The *Eye* is so tender, that a slight accident, scarce perceivable by some other parts of the body, proves very injurious to its delicate frame. It is guarded, therefore, with the most solicitous care; with a care evidently proportioned to its nice texture, and extensive usefulness. It is *entrenched* deep in the head, and *barricaded* on every side with a strong fortification of bones. The wisdom and goodness of the Creator appear in the astonishing apparatus of muscles with which the eye is furnished, to produce all the necessary and convenient motions in the situation where it is placed. The eye-brows serve to defend this delicate organ from too strong a light; and as the incursion of the smallest fly would incommode the polished surface, it is farther defended by two substantial *curtains* (eye-lids) hung on a most slender cartilaginous rod, which secure it from floating dust and from every troublesome annoyance. In sleep, when there is no occasion to exercise the sense, but an absolute necessity to protect the organ, these curtains *spontaneously* close, and never fail to lie shut. On the inside of these curtains or eye-lids, lie glands, which secrete a limpid fluid, that lubricates the eye-ball, as often as we wink, or, as it were, oils its wheels, and fits it for a course of unwearied activity.

The *Ear* consists of an outward porch and inner chambers, with tools of the most admirable contrivance, and finished workmanship. The *porch* is that *cartilaginous* substance, standing somewhat prominent from the head, covered with a tight expansion of the skin, and wrought into irregular bends and hollows; which, like circling hills, or surrounding rocky shores, collect the wandering undulations of the air, transmit them with vigorous impulse, to the finely stretched membrane of the tympanum, or drum of the ear. The *avenue*, or narrow entry, is secured from the insinuating attempts of little insects, by a *morass* of bitter and viscous matter, disgustful to their taste, and embarrassing to their feet. The *hammer* and the *anvil*, the *stirrup* and the *drum;* the winding labyrinths, and the winding galleries; these and other pieces of mechanism, instrumental to the power of hearing, are, beyond description, curious.

Amazingly nice must be the formation, and inconceivably exact the tension of the auditory nerves, since they correspond with the smallest tremours of the atmosphere, and easily distinguish their most subtle variations. With the gentle gales that fan us, or even with the ruder blasts that assault us, these delicate strings are but little affected. Whereas, they are perfect *unisons* with those fine, those significant agitations of the air, which the acutest is unable to discern. These living chords, tuned by the touch of an Almighty hand, and diffused through the echoing aisles, and sonorous cells, receive the impressions of sound and propagate them to the brain. These give existence to the charms of music, and reciprocate the rational entertainments of discourse. The *eye* perceives only the objects *before* it; whereas the *ear* warns us of transactions above us, behind us, all around us. The eye is useless amidst the gloom of night, and cannot carry its observation through the bolted door or the closed window-shutter; but the ear admits intelligence through the *darkest* medium, and the minutest cranny. Hence, when, we cannot see a friend, because of an interposing partition, yet, by the friendly aid of this organ, we can learn that he is in the adjoining room by his voice, or that he is near by his steps. The eye is upon duty only in our waking hours; but the ear is always expanded, and always accessible; a courier which never tires, a centry ever in his box. To secure a resource, in case any misfortune should disable *one* of the hearing or seeing organs, our all gracious MAKER, has given us *duplicates* of each.

As there are tremulous concussions impressed upon the air, discernible only by the instruments of hearing; there are also *odoriferous* particles wafted by the same aerial vehicle, which are perceivable only by the *smell.*

The *Nostrils* are wide at the bottom, that a large quantity of effluvia may enter; narrow at the top, that when entered, they may close their ranks, and act with greater vigour. Fine, beyond all imagination, are the streams exhaled from fœtid or fragrant bodies. The very best microscopes, which discover *thousands* and tens of *thousands* of animalcules in a drop of putrified water, cannot bring one individual among all these evanescent legions to our sight. They sail in numberless squadrons close to our eyes, close by our ears; yet are so amazingly attenuated, that they elude the search of both. Nevertheless, so judiciously are the olfactory nets laid, and so artfully their meshes seized, that they catch these vanishing fugitives. They catch the roaming perfumes, which fly off from the opening honey-suckle, and take in the stationed sweets which hover round the expanded rose. They imbibe all the balmy fragrance of spring, all the aromatic exhalations of autumn, and enable us to banquet even on the *invisible* dainties of nature.

> Furnished with these several organs,
> * * * * * not a breeze
> *Flies o'er the meadows, not* a cloud *imbibes*
> *The setting sun's effulgence, not a strain*
> From all the tenants of the warbling shade
> *Ascends, but whence our* senses *can partake*
> *Fresh pleasure.* AKENSIDE.

Another capacity for frequent pleasure, our bountiful CREATOR has bestowed in the power of *taste;* by means of which the food, that supports our body, feasts our palate; first treats us with a pleasing regale, then distributes its beneficial recruits. The razor, whetted with oil, becomes more exquisitely keen; so the *saliva*, flowing upon the tongue, and moistening its nerves, quickens them into the liveliest acts of sensation. This sense is circumstanced in a manner peculiarly benign and wise; so as to be a standing, though silent plea for *temperance.*

The sight, smell, and taste, are not only so many separate sources of delight, but a joint security to our health. They are the *vigilant* and *accurate* inspectors which examine our food, and inquire into its properties, pleasant or disagreeable, wholesome or noxious. For the discharge of their offices, they are excellently qualified, and most commodiously situated; so that nothing can get admission through the mouth, till it has undergone the scrutiny and obtained the pasport of each.

To all these, as a most necessary and advantageous supplement, is added the sense of *feeling;* which renders the assemblage complete. While other senses have a particular place of residence, this is diffused throughout the *whole* body. In the palms of the hands, on the tips of the fingers, and indeed through all the extreme parts of the flesh, it is most quick and lively.—The whole army of Xerxes drawn out in battle array, with his *millions* of supernumery attendants, were but like a few *gleaners* straggling in the field, if compared, either in number or order, with those nervous detachmnnts, which pervade the texture of the skin and minister to the act of feeling.

The *crowning gift*, improving the satisfaction, and augmenting the beneficial effects of all the senses, is *speech*. Speech makes me a gainer from the eyes and ears of other people; from the ideas they conceive, and the observations they make. And what an admirable instrument for articulating the voice, and modifying it into speech is the *tongue!* The tongue has neither bone nor joint; yet fashions itself, with the utmost volubility, into every shape and every posture, to express sentiment, or constitute harmony. This little collection of muscular fibres, under the conducting skill of the CREATOR, is the artificer of our words. By this we communicate the *secrets* of the breast, and make our very *thoughts* audible. By this we instruct the ignorant, and comfort the distressed; we glorify GOD, and edify each other:

> Who would not bless for this the gift of speech,
> And in the tongue's beneficence be rich?

But *still*, what is this mansion of flesh, though so exquisitely wrought, compared with the noble and immortal inhabitant, which resides within?

> * * * * * * "*That intellectual being,*
> *Those thoughts, which wander through eternity.*"

The *Mind*, or *Soul*, of much higher character than that of the perishable frame with which it is at present connected, has neither *nerves*, nor the *nervous fluids*. These are only *its agents*, in this its imprisoned state. When the "*silver cord*" is broken, which connects MIND and MATTER together, vitality ceases. The body then, with all its artful and numerous vessels, fibres and nerves, and other exquisite *machinery*, undergoes decomposition, and is turned into its original elements; but the IMMORTAL SOUL, having shaken off this coil, is destined for a new residence; to flourish in eternal youth; to outlive the wreck of elements and the crush of worlds. It is embodied even in its residence in another world. "Thou fool," says the Philosopher and Apostle, "that seed which thou sowest is not quickened except it die.—"And that which thou sowest is not that body which shall be, but God giveth it a body as it hath pleased him, and to every seed its own body. So also is the resurrection of the dead. The body is sown in the earth in dishonour, it is raised in glory; it is sown in weakness, it is raised in power; it is sown a natural body, it is raised a spiritual.—Behold I show you a mystery. We shall not all sleep, but we shall all be changed. In a moment, in the twinkling of an eye, at the last trump; for the trumpet shall sonnd, and the dead shall be raised incorruptible, and we shall be changed. For this corruptible must put on incorruption, and this mortal must put on immortality." Man, therefore, is not what he will hereafter be. What we discover of him here below, is only the gross *foldage*, under which he crawls upon the earth, and which he must shortly cast off.

The animal body has no other relation than to this earth. The spiritual body will have enjoyments which "*ear hath not heard, nor hath it entered into the heart of man to conceive.*" New senses will be disclosed, multiplying perfections in an almost infinite degree. Man's sphere will be aggrandised, and he will become equal to superior intelligences. Revelation informs us it will be so; and the parable of the seed is the most expressive and philosophic emblem of this wonderful pre-ordination.

The senses, as they are brought into subjection to the soul, will no longer rule over her. Separated from flesh and blood, there will remain in her none of those earthly affections resulting from them. Transported into the regions of light, the human understanding will present no ideas to the will, but those of the highest good. It will then have no other than lawful desires, and God will be their constant and ultimate end. It will love him from gratitude; fear him from a principle of love; and adore him as the supremely amiable being, the eternal source of life, perfection, and happiness.

The *Thorax*, or breast, is situated between the belly and neck. The front part is commonly called the breast; the posterior part the back; and the latteral parts the right and left sides.

Before we take notice of the internal parts, it may be proper to speak of the mammæ or breasts.

These are two glandular bodies, of a round oval figure, most remarkable in women. The period of their growing full in the female, is about the age of fourteen or fifteen, and that of their decreasing, fifty. The breasts are composed of a vast multitude of minute vessels to secrete the milk from the blood. These vessels, as they approach the nipple, fall into, and form eight or ten larger pipes, connected together with admirable skill, that, in case of any obstruction or accident in any one or more of them, the milk might not be obstructed.

The swelling of the breasts, during the time of gestation, is owing to the consent between them and the womb.

The cavity of the breast is lined by a fine smooth membrane, named pleura, and contains those two grand organs, the heart and lungs.

The *Lungs* are divided into two larger portions, called lobes; the one on the right, and the other on the left side.

The vessels which enter the lungs, are the trachea, or windpipe, by which we draw in the air; the pulmonary artery, which comes from the right ventricle of the heart; and the pulmonary vein, whose trunk opens into the left ventricle of the heart:—Each of these divides into two branches.

The lungs differ from every other part of the body in this respect; the wind-pipe, in its minutest ramifications, passes through all parts of its substance, terminating every where in air vesicles, for the grand purpose of respiration, which keeps it in a continued state of action and re-action. Hence, when the lungs are diseased, their motion is not only increased by the respiration being quickened, but they suffer violent concussion by the means of coughing. This circumstance renders disorders of the lungs more peculiarly difficult to cure.

The *Heart* is a strong, active, indefatigable, muscular body, of a conical figure, included in an exceedingly strong membranous bag, called the pericardium, or heart-purse, and situated in the cavity of the chest. It has two separate cavities, called ventricles, out of which issue the two large arteries of the human body, one called pulmonary, or artery of the lungs, the other aorta, or large artery of the body, from which all the other arteries go off, as branches of a tree from its trunk, dividing themselves into minute ramifications in their progress. Near the mouths of these two ventricles are two other hollows, which, from their similitude to dog's ears, are called auricles, into which the veins, returning from all parts of the body with the blood, empty themselves, through two large trunks or channels. It has two motions, called *systole* and *diastole;* the former is when it contracts itself, and thereby forces the blood into the arteries.—The diastole is when it relaxes itself, and receives the blood from the veins. The ventricles of the heart are each capable of receiving an ounce of blood or more, and therefore, being full in their diastole, we may suppose that they throw out at least one ounce of blood each systole. The heart contracts about four thousand times in an hour, more or less, according to the different temperaments, sexes, and ages; and, therefore, there pass through the heart every hour, four thousand ounces, or two hundred and fifty *pounds weight* of blood. Now the common opinion is, that the whole mass of blood does not exceed twenty-five pounds, and, therefore, according to this allowance, a quantity of blood equal to the whole mass, passes through the heart ten times in an hour, that is, about an ounce every second. If the heart contract eighty times in a minute, then twenty-five pounds weight of blood pass through its ventricles once in five minutes, or twelve times in an hour. The farther the blood moves from the heart, its velocity decreases as the artery divides into more branches, so much so, that the blood moves 5233 times slower in some capillary arteries than it does in the aorta or great artery. The blood is received from the arteries into the veins, where it still moves more slowly as it returns to the heart again. The arteries are to the veins as 324 to 441, and consequently the blood moves in the veins above 7116 times slower than it does in the aorta.

The heart is the grand organ of the circulation of the blood, and, consequently, of life. Impelled by this beating engine, part of the blood shoots upward; and sweeps, with a bounding impetus, into the head. There it impregnates the prolific fields of the brain; and forms those *subtile spiritous* dews, which impart sense to every nerve, and communicate motion to every limb.—Part flows downward; rolls the recking current through all the lower quarters; and dispenses the nutrimental stores, even to the meanest member, and the minutest vessel.

Observe, how the stately *Thames*, and the lordly *Potomac* refresh the forest and groves; water the towns which crowd their banks; and make the meadows they intersect, laugh and sing.—So, only with an incomparably *richer* fluid, and with infinitely *more numerous* streams, this human river laves the several regions of the body, transfusing vigour, and propagating health through the whole. The living flood never discontinues its interchangeable tide; but, night and day, whether we sleep or wake, still perseveres to sally *briskly* through the arteries, and return softly through the veins.

Such astonishing expedients are used to elaborate the chyle, to blend it with the blood, and to distribute both through the body, that the animal constitution is perfectly maintained. In youth, its bulk is increased; in age, its decays are repaired; and it is kept in tenantable condition for the soul during the space of seventy or eighty years.

The doctrine taught by the immortal Harvey, the discoverer of the circulation of the blood, is, that all the veins of the body falling into two trunks, viz. the ascending and descending cava, empty themselves into the right auricle of the heart. The right auricle unloads into the right ventricle of the heart, which throws the blood through the pulmonary artery, into the lungs, by its two branches, which go to the right and left lobes.

From the lungs the blood is brought back by the pulmonary veins, into the left auricle, and thence it passes into the left ventricle, from which it is distributed through the body by the aorta, or large artery and its branches. These terminate in the veins of the body, which collect the blood and bring it back to the heart, by the two cava, or large veins.

In other words, the blood is conveyed from the left ventricle of the heart, by the aorta and its branches, to the minutest and most remote parts of the body, and then, passing from the extremities of the smallest arteries into the incipient veins, circulates through them into their larger branches, and so on into the right auricle of the heart, thence into the right ventricle, whence it is forced, with the fresh supplies that it receives from the chyle in passing through the subclavian vein, into the pulmonary artery, and, after circulating through, and being acted upon by the lungs, in its passage through them, is returned by the pulmonary vein, into the left auricle and thence into the left ventricle, and so on, the same round, until death concludes the progress.

There is in the consideration of the organs performing the circulation of the blood, an air of grandeur that seizes forcibly on the mind, and penetrates it with the highest admiration.

We perceive that the blood, every time it is returned to the right ventricle of the heart, is directly dispersed through the lungs, and immediately reconveyed to the heart, before it is permitted to begin a new circulation. In the study of nature throughout all her work, however complex the machine, the utility of each part ever claims the admiration of the speculative mind.

The observation is beautifully illustrated on the present occasion, and "I believe it will be admitted by every one," says the ingenious author of the Medical Extracts, "that the blood, after having performed one round, throughout the animal economy, undergoes some new and important change in its transit through the lungs, especially requisite to support a second circulation. This change is certainly the oxygenation of the blood, and we should expect if oxygen be the natural stimulus to the heart and arteries, that their pulsation would be in proportion as the blood had access to this principle."

That animal heat depends upon the action of the arteries, and the circulation of the blood in general, is very natural to imagine; because whatever increases the velocity of the circulation, whether exercise, friction, or disease, also increases the internal heat; whereas fainting, hemorrhage, and whatever produces a weak and languid circulation, also diminish the heat of the body.

When a ligature is put around an artery, so as to prevent the blood from being carried to any particular limb, that limb becomes colder than it was, and does not recover its natural heat, until, by removal of the ligature, or the expansion of the branches, which go off from above the ligature, the usual quantity of blood is circulated through the limb.

With a new-born infant, the first thing is to infuse into its nostrils "the breath of life;" for until the lungs be expanded, and the venal or purple blood changed into arterial or crimson, in that organ, the heart does not contract, nor the arteries vibrate; like a clock not wound up, though sound in all its parts, remaining entirely at rest. In the clock, if we wind it up, the mainspring applying its powers, all the wheels are immediately put into motion, and it marks its hours and minutes; so, likewise, in the animal machine, the blood in the lungs having imbibed the vital principle from the air, the heart acquires its actions, the brain its energy, the nerves their sensibility, and the other subordinate springs of life presently resume their respective functions.

No organ can be severely affected without affecting the heart, and disturbing its functions; nor can the heart be in the smallest degree affected, without disturbing every function of the animal economy.

But the heart is not only affected by what injures the body, but also by what ruffles the mind. Rage occasions frequent and forcible contractions; sorrow, slow and languid ones; and there are instances of violent passions suspending the contractions of the heart altogether, and occasioning death. The heart is not only affected by whatever hurts the body or mind of the person, to whom it belongs, but also by what hurts the bodies or minds of others. But the extent of this kind of sympathy differs greatly in different persons. In some it embraces children, friends, relations, countrymen, and in a certain degree, the whole human race; in others, it seems to be entirely confined within the limits of their own bodies, or at most, reaches with a blunted sensibility, no farther than to those whom they conceive to be their own offspring. While the blood is in circulation, various liquors are separated from it by a process called secretion, all these secretions being necessary for the health and preservation of animal life. When it is taken from the vein by the usual mode of bleeding, and left to itself, it soon congeals, and appears to be composed of two distinct parts, called crassamentum, or solid, and serum, or liquid. In a mass of healthy human blood, about one half is crassamentum, which hath the red colour to itself. The serum in a healthy state is almost colourless; at other times it is yellowish, or of a greenish hue, while the top of the crassamentum has different degrees of firmness, and puts on different appearances, with respect to colour, according to the constitution and health of the subject, from which it is taken. A due proportion of the respective parts of the blood is necessary to perfect health.

The *Diaphragm*, or *Midriff*, is a large, thin, broad muscle, that divides the breast from the belly.

The uses of the midriff are, first, to assist in respiration; for, in taking in the breath, it is pressed downwards, and in expiration, it rises upwards into the cavity of the breast; secondly, to assist the necessary motions of the stomach, intestines, liver and spleen; and for assisting the expulsion of the fæces, the urine, the fœtus in parturition, and of the secundines or after birth.—It marks our passions by its irregular actions, as sighing, yawning, coughing, laughing. It is affected by spasms as in hiccough.

The *Abdomen*, or *Belly*, lies between the breast and pelvis which is formed by the juncture of the haunch bones.

The belly contains many of the principal parts of the human body, as the stomach, the intestines, liver, spleen, pancreas, kidneys, bladder, &c. On its inside, it is lined with a membrane called peritoneum, which is capable of a very great extension; and afterwards can contract itself to its ordinary size, as we see in pregnancy, dropsy, corpulency, and repletion.

The *Stomach* may be considered a dilatation of the œsophagus or gullet, as it is a continuation of the same tube. Its figure nearly resembles the pouch of a bag-pipe, and has two orifices, the one above from the gullet, through which it receives the crude aliment, the other below, whereby it conveys the partially digested food or chyle into the duodenum.

Before the food enters the gullet, it must of necessity pass over the orifice of the *wind-pipe;* consequently must be in very imminent danger of falling upon the lungs, which would, if not entirely obstruct the breath, yet occasion violent coughing, and great inconveniencies. To obviate this evil, the all-foreseeing CONTRIVER has placed a *moveable lid*, or hung a *cartilaginous drawbridge;* which, when any of the smallest particle of food advances to enter the stomach is pulled down, and shut close; but the very moment the morsel is swallowed, it is set loose and stands open. By this two-fold artifice, the important passage is always barred and made sure against any noxious approaches; yet is always left free for the necessary accession of air, and commodious for the purpose of respiration.

When the malster prepares his grain for the transmutation of the brew-house, he suffers it to lie several hours steeping in the cistern, before it is fit to be spread upon the floor, or dried on the kiln. The meat and drink likewise must remain a considerable time in the *stomach* before they are of a proper consistence and temperature, either for the tender coats, or the delicate operation of the bowels. For which purpose that great receiver is made strong to bear, capacious to hold, and so curiously contrived, as to lay a *temporary embargo* upon its contents. Here they are lodged in the very centre of warmth, and concocted by the most kindly combination of heat and humidity. Here they are saturated with other fermenting or diluting juices; and are kneaded, as it were, by the motion of the stomach, and compression of the neighbouring parts. So that every the minutest fragment is separated; the whole is reduced to a *tenuity* abundantly finer than the exactest grinding could effect; and all is worked up into the smoothest, most *nicely mixed* pulp imaginable. From hence it is dislodged by a gentle acting force, and passes by a gradual transition, into the cavity of the intestines.

The *Intestines* form one continued canal from the stomach to the anus, which is usually five or six times the length of the individual. It is curiously convoluted in the abdomen, and is extremely irritable. Although one entire tube, anatomists have divided it into the small and great intestines. The small intestines are called duodenum, jejunum, and ilium; the larger are the cæcum, colon, and rectum.

The duodenum, so called, because it is generally *twelve inches long* in adults, is the widest and shortest of the small intestines. At a short distance from where it joins the stomach, it receives two ducts, the one from the liver, bringing the bile, and the other from the pancreas, or sweet bread, bringing its liquor to complete the digestion of the food. The second gut is the Jejunum, so called, from its being usually found *empty*, its numerous lacteal vessels having absorbed the chyle.

The Ilium is the third and last of the small intestines. The great length of the small guts is evidently for the convenience of a greater number of lacteals, that the chyle which misses their orifices in one place may not escape them in another.

The Cæcum, or blind gut, is a pouch, as it were, of the Colon, about three inches long, and called blind, from its being out of the direction of the passage of the food.

The Colon is the greatest and widest of all the intestines, about eight or nine hands' breadth long, and by lying so contiguous to all the bowels, it communicates all the benefits of the injections thrown into it.

When the Colon is affected, there is a sense of weight though the pain is not very acute; whereas in the small guts there is not any sense of weight, but an acute pain. Sometimes a pain in the colon attended with fever, the pain extending to the ribs, gives a suspicion of pleurisy, though the colon only is affected. The colon is narrower on the right side than elsewhere, whence colic pains arise more frequently, and are more severe in this part.—The excrements are long retained here, and often are much indurated before they pass farther on.

The Rectum, or straight gut, is about a hand's breadth and a half long. It begins where the last curvature of the colon ends, and is terminated at the fundament. At its termination it is surrounded by circular muscular fibres, called the sphincter ani, to retain the fæces.

The intestines are not left to move at random in the cavity of the abdomen, but are artfully tied down by a membranous web, which prevents their circumvolutions from being entangled in each other, at the same time allowing a gentle, but animated motion. That part of it connected with the small intestines is called mesentery, the other part fastened to the colon, mesocolon: All the intestines have in their inner membrane an almost infinite number of very small glands, whose office it is to discharge into the intestines a liquor for the attenuation of the chyle, for lubricating the intestines, and in the large guts to soften the fæces, that they may be evacuated without pain. The intestinal canal serves to complete the first digestion, strain off the chyle, and carry off the fæces.

Had the intestines been *straight* and *short*, the food might have gone through them, without resigning a sufficient quantity of its nourishing particles. Therefore this grandest of all the vital ducts is artfully convolved, and greatly extended, to afford an opportunity of sifting more thoroughly whatever passes, and of detaining whatever may serve its purposes. Though the alimentary substance can never mistake its way, yet it may, through some accidental impediment, attempt to return backward. In this case a valve intervenes, and renders what would be extremely pernicious almost impracticable.

Upon a survey of the use of the stomach and intestines, we cannot avoid being struck with wonder at its apparent simplicity answering so many salutary purposes. As soon as we take our food, it is received into a place in all points calculated to render it fit for yielding its nutritious contents. At first, the food taken into the stomach, retaining its peculiar properties, irritates the coat of that organ, and occasions a contraction of its two orifices. The food thus confined, then undergoes a constant agitation by means of the abdominal muscles, and of the diaphragm, and by the motion of the fibres of the stomach itself. By these movements, every part of the food is exposed to the action of a fluid secreted in the stomach, called the gastric juice, which gradually dissolves and attenuates the food, and prepares it for its passage into and farther change in the intestines.

The painful sensation of hunger, which is the irritation of the gastric juice on the coat of the stomach, or a sensation of a defective supply of chyle in the arterial system, being removed by the food, we soon feel a mild and undescribable delight, first, from the stimulus of the aliment; and secondly, from the distension of this, and the increased action of other parts.

The aliment having remained during two or more hours in the stomach, is converted first into a greyish pulp, which is called chyle. This fluid passes out of the right orifice, the fibres of which relax to allow it to escape; while the grosser and less altered particles remain in the stomach till they acquire a sufficient fluidity to pass into the intestinal canal. As the digested food enters the duodenum, it stimulates the common duct of the gall-bladder, from which it receives a full supply of bile and of saliva, secreted from the pancreas.

The *Chyle*, drawn off by all the secretory orifices, is carried along millions of the finest ducts, and lodged in several *commodious cells*. As a traveller, by taking proper refreshments on the road, is better qualified to pursue his journey; so the chyle, diverted to those little inns, is mixed with a thin, diluting watery substance, which renders it more apt to flow, and more fit for use. Hence it is conveyed to one *common receptacle*, and mounts through a perpendicular tube. When provision or ammunition is transmitted to an army, it generally passes under an escort of able troops. As this is the immediate support and principal nourishment of the whole system, its conveyance is guarded with peculiar caution. The *perpendicular* vessel that conveys it, not having sufficient force of its own, is laid contiguous to the great artery, whose strong pulsation drives on the creeping fluid, enables it to overcome the steep ascent, and unload its precious treasure at the very door of the heart. Here it enters the trunk of a large vein, secured by a valve, admirably constructed to prevent the refluent blood in case it should offer to return, and opening a free, safe, and easy avenue to introduce this milk, this manna of nature.

The *Blood*, through every stage of its simple circuit, having sustained great expenses; being laid under contribution by every gland in the whole system; and having supplied myriads of the capillary vessels with matter for insensible perspiration, must be very much *impoverished;* but is most opportunely recruited by this accession of chyle.

Besides the uses above specified, appropriated to the stomach and intestines, there is another very considerable bestowed, particularly on the former, by which impressions are diffused to almost every part of the machine, and from which all the sensible parts receive very peculiar and extraordinary advantages; namely, conveying action to different parts, and feeling the effect from these sympathetically and instantaneously. For instance, a glass of wine or brandy, received into the stomach of a person exhausted with fatigue and ready to faint, gives instantaneous spirits and fresh vigour. This must proceed from the affection of the nerves of the stomach, and their sympathy with the rest of the body, as there is not time for the liquor to be conveyed into the blood in the usual manner.

The *Stomach* universally sympathises with other parts of the body. A blow on the head occasions vomiting. A disordered stomach often excites a head-ache. The head-ache, which is apt to come after drinking too much wine, or other strong liquors, certainly proceeds from the stomach, and sometimes is diminished or entirely removed by a dram. A stomach disordered by indigestion is often accompanied with flushings in the face, palpitations at the heart, difficult breathing, dejection of spirits, uncommon sensibility, and with giddiness.

The *Omentum*, or *Caul*, is a fine membrane like net-work, larded with fat. It is situated under the peritoneum, and immediately above the intestines, on the surface, resembling an apron tucked up. It serves to lubricate the intestines, that they may the easier perform their peristaltic motion, to cherish and defend them from cold, and to assist in the formation of the bile. It serves also to temper the acrimony of the humours, and probably, to give nourishment to the body, as all the other fat is supposed to do, when it is incapable of being nourished any other way.

The *Liver*, situated immediately below the diaphragm or midriff, on the right side, reaches as far back almost as the spine, or back-bone, and rests upon the right kidney. It is the largest gland in the body, and is divided into two unequal parts, called lobes. Except for the vessels, which are very numerous, the liver would be very soft, and like a piece of congealed blood.

The great use of the liver is to secrete the bile. It is the seat of various disorders, inflammation, abscess, scirrhus, &c. and in most of them, the countenance hath a pale colour, or a yellowish one with a green cast. There is one circumstance not much attended to with respect to the situation of the liver; its large or right lobe occupies the whole half of the belly, where it lies from the spine to the inside of the ribs, laying over the upper part of the kidneys. Now this position of the liver is not often considered, for when one has a pain in the small of the back, it is said to be in the kidneys; but if it be a little higher up in the back, it is seldom, if ever, thought to be in the liver, though it most undoubtedly may, as its posterior edge lays on that part, on the right side.

The *Gall Bladder*, or receptacle of bile, is fixed to the under side of the liver. Punctual as a porter in his lodge, it waits, ready to pour its acrimonious, but salutary juices on the aliment, as it advances from the stomach; which *dissolve* its remaining viscidities, support the peristaltic motion of the intestines, and greatly assist in completing the digestion.

Such is the importance of the bile in our constitution, and the ill consequence of an error in it, that every aid is desirable, by which our knowledge of its nature can be promoted. When there is a defect of bile, it disposes the body to various diseases; as melancholy, indigestion, and obstruction of the viscera, &c. When there is a redundancy of bile, or it offends the stomach by its acrimony, it causes chilliness, shivering, and great anxiety.— It is certain, that in fevers the bile is not only plentifully generated, but peccant in its quality; and if not duly evacuated, must be productive of many disagreeable symptoms; hence the importance of a soluble belly in febrile disorders.

The *Pancreas*, or *Sweet Bread*, a large gland, situated near the stomach, serves to secrete a liquor like the saliva, which is discharged, by a short duct into the duodenum.

The *Spleen* is situated under the cartilages of the left short ribs. In its natural and sound state, it is about six or seven inches long, about three in breadth, and one in thickness. It often becomes scirrhous and considerably enlarged in persons who have been frequently attacked with intermittent fever. Its use is not precisely known.

The *Kidneys* are two oval bodies, situated in the loins, contiguous to the two last short ribs; the right under the liver, and the left under the spleen. They separate the urine from the blood.

The *Ureters* are tubes about the size of goose quills, and about a foot long; rising from the kidneys, and entering the bladder near its neck. They form to themselves, as it were, valves, so that, upon the contraction of the bladder, the urine is ejected through the urethra, its proper passage.

The *Bladder* is a membranous and fleshy sack or bag, capable of contraction and dilatation, situated in the lower part of the belly. Around its neck, which is longer in men than in women, there goes a small sphincter muscle, to contract the orifice, that the urine may not be involuntarily discharged. The use of the bladder is to receive the urine, perpetually secreted into it from the kidneys.

The *Uterus*, or *Womb*, between the urinary bladder and the rectum, or straight gut, is placed, by Divine Wisdom, in a situation of great security, called the pelvis or basin, being guarded on all sides by the strong bones that form the basis of the trunk. In figure, it very much resembles a pear, its broadest extremity, which is called its bottom, is uppermost, and its small part, the neck, is downwards. The womb, when impregnated, hath a very small cavity, but becomes larger as pregnancy advances, and, in the time of delivery, has its mouth wonderfully dilated, so as to give passage to the child.

About the age of puberty, the blood vessels of the uterus become distended, and secrete monthly a fluid called menses, catamenia, and vulgarly, flowers, courses.

The *Vagina*, or *Neck of the Womb*, extends from the mouth of the uterus to the pudendum or external parts. In women it enlarges, and, like the uterus, in the time of birth, dilates very much. Just within the vagina is the orifice of the urethra, which is shorter, wider, and straighter than in men.

Besides the womb and vagina, there are two other contrivances supposed to perform particular functions, in the propagation and formation of our species, the one called ovaria, from their retaining small round substances of the nature of eggs, the other fallopian tubes, from their discoverer, Fallopius.

The *Fallopian Tubes* are situated on the right and left sides of the womb. They rise from its bottom by a narrow beginning, and dilate in the form of a trumpet to their extremities at the ovaria. Their cavity, where they open into the womb, will scarcely admit of a hog's bristle; but at its widest part, it will take in the end of one's little finger. The tubes are about four or five fingers' breadth long.

They serve to convey from the ovaries the rudiments of the fœtus to the womb, where they are further developed and perfected.

The *Ovaria*, or *Ovaries*, are two small bodies, situated on each side of the fundus uteri, or bottom of the womb, behind the fallopian tubes. At the age of puberty they are full and plump, and continue so until the menses are about to depart. They contain from ten to twenty or more pellucid eggs, supposed to contain the primordia of the fœtus.

The *Testes*, or *Testicles*, are two oval glandular bodies, seated in the scrotum, which serve to secrete the semen from the blood. The scrotum, or external covering, is made up of the scarf skin, true skin, and immediately under the latter, is a thick cellular texture closely adhering to it. It is likewise composed of many fleshy, or muscular fibres, by means of which the scrotum is contracted, and is rsckoned a sign of health.

The *Prostate Gland* is situated at the neck of the bladder; and is about the bigness of a walnut. By some it is supposed to secrete a fluid merely to lubricate the urethra, and by others it is deemed subservient to the process of generation.

The *Urethra* is a canal or pipe of the thickness of a goose quill, and about twelve or thirteen inches long, which begins at the neck of the bladder, and terminates at the end of the penis. Its inner membrane furnishes a mucilaginous liquor, serving to defend it against the acrimony of the urine.

The *Penis* is composed of two spongious bodies, part of the urethra, the glands or nut at its extremity, and its integuments.—The spongious bodies take their name from being porous like sponge, and capable of being distended and enlarged by the blood penetrating their substance, as in cases of erection. The integuments of the penis make a hood to the glands or nut of the yard, called prepuce or foreskin. The small ligament, by which it is tied to the under side of the nut, is called frænum. The use of the prepuce or foreskin, is to keep the nut soft and moist, and to preserve its sensibility. The amputation of it constitutes circumcision, a practice recommended by Moses to the Jews.

We shall now conclude the anatomical part of the human body, and trust enough has been said, concise as it is, to give to the uninformed readers just conceptions of the most important parts of the human machine, and its natural action.

We see the greatest multiplicity of parts, yet the most perfect harmony subsists between them all. No one hinders, but each assists the operation of another, and all conspire to the benefit and preservation of the whole. Most judiciously has the great Apostle touched this subject; and most happily applied it to illustrate the reasonableness, and enforce the practice, both of *personal* and *social* duties of private content, and public concord.

The body, he observes, *is not one member*, *but many*, to each of which some peculiar and needful office is assigned; so that the *foot*, though placed in the lowest order, and destined to serve on the very ground, has no reason to reckon itself a worthless outcast; or to say, *Because I am not the head*, *I am not of the body*. Neither has the *head*, in its exalted station, and amidst its honourable functions, any cause to despise the inferior limbs; or to say, with contempt and self-sufficiency, *I have no need of you*.—If there were no feet, what would become of the locomotive faculty? or how could the body convey itself from one place to another? If there were no hands, what should we do for the instruments of action? or how could the animal frame be defended and accommodated? Nay, the parts, *which seem to be less honourable*, are necessary. Even those which form the sediments, or throw off the dregs, are of importance to life and its comforts. Should those be obstructed in their action, the most raging torment ensues; and should the obstruction continue, death is the inevitable consequence.—By this wise adjustment, *there is no schism in the body*, no separate or interfering ends pursued by the members, but the safety and support of each are the one undivided care of all.

Wise, wonderfully wise and eminently gracious, is the regulation both of *spontaneous* and *involuntary* motion. Were this regulation reversed, what deplorable inconveniencies would take place; nay, what unavoidable ruin must ensue! *Deplorable inconveniencies;* if the discharges of the bowels, or evacuations of the bladder, were quite independent of our leave. *Unavoidable ruin;* if the action of the heart required the co-operation of our thoughts, or the business of respiration waited for the concurrence of our will.

The will, in some cases, has not so much as a single vote. In others, she *determines* and *commands* like an absolute sovereign; nor is there a monarch upon earth so punctually obeyed, as this queen of the human system. If she but intimate her pleasure, the spirits run, they fly to execute her orders; to stretch the arm, or close the hand; to furrow the brow with frowns, or dimple the cheek with smiles. How *easily*, as well as *punctually*, are these orders carried into execution! To turn the screw, or work the lever, is laborious and wearisome: but we move the vertebræ, with all their apparent chambers; we advance the leg, with the whole incumbent body; we rise from our seat; we spring from the ground; and, though much force is exerted, though a very considerable weght is raised, we meet with no difficulty, we complain of no fatigue.

That all this should be effected without any toil, and by a *bare act* of the will, is very surprising: but that these motions should be made, renewed, continued, even while we remain *entirely* ignorant of the *manner* in which they are performed, is beyond measure astonishing. Who can play even a *single* tune upon the piano, without learning the difference of the keys, or studying the rudiments of music? Impossible! Yet the mind of man touches *every* string of the human machine with the most masterly skill, though she knows nothing at all concerning the nature of her implements, or the process of her operations. We walk, we run, we leap, we throw ourselves into a variety of postures, and perform a multitude of motions, yet are utterly unable to say which nerve should be active; what muscles should swell, or what tendons approximate.

Put a German flute into the hand even of a sensible person; without a master to instruct him, he is at a loss to make the instrument speak; much less is he able to sink and soften the sound, to exalt and extend it just as he pleases. Yet we are self-taught in the method of *forming, regulating, and varying the voice.* Naturally, and with unpremeditated fluency, we give it the languishing cadence of sorrow, or the sprightly airs of joy; the low faltering accents of fear, or the elated tone, and rapid sallies of anger. We can never sufficiently admire this multiplicity of animated organs; their finished form, and their faultless order.—Yet I must confess myself struck with greater admiration at the power, the *truly mysterious* power and sway which the soul exercises over them. Ten thousand reins are put into her hand; she is not acquainted with their office, their use or their name; she has not learned so much as to distinguish one from another, nevertheless she manages all, conducts all without the least perplexity, or the least irregularity; rather with a promptitude, a consistency, and a speed, which nothing else can equal! Since health depends upon such a numerous assemblage of moving organs; since a single secretion stopped, may destroy the salutary state of the fluids, or a single wheel clogged, may put an end to the vital motion of the solids; with what holy *fear should we pass the time of our sojourning here below!* trusting for continual preservation, not merely to our own care, but to that omnipotent hand which formed the admirable machine: that the same hand which formed it, may superintend its agency and support its being.

When we consider the extensive contrivance and delicate mechanism—what plans of geometry have been laid; what operations of chemistry are performed; in a word, what miracles of art and elegance are executed, in order to furnish us with the necessary recruits and the several delights of life—is there not abundant reason to cry out with the inspired writer, "*How dear are thy counsels unto me, O God!*" thy counsels of creating wisdom! Thou hast not been sparing, but even lavish of thy indulgent designs! Thou hast omitted no expedient which might establish my ease, enlarge my comforts, and promote, yea complete, my bodily happiness! and is not this a most endearing obligation *to glorify the blessed* God *with our bodies, as well as with our spirits?*

The mechanism of our body; the connexion and subserviency of all its parts to a common purpose; the exquisite contrivance of its organs, consisting of such various minute vessels, interwoven with wonderful art, have led anatomists, in all ages, to acknowledge an infinite, wise and powerful Maker. Among the most precious remains of antiquity, are those commentaries of Galen, written on the uses of the several parts of the human body, as hymns and offerings of praise to the great Creator.

Is it, indeed, otherwise conceivable how such consistency and harmony could have taken place in the different parts of our wonderful frame? How they could have been so exactly fitted to each other, and to the exterior objects which have an evident relation to them, and the system they compose? Could the bones, which in all amount to four hundred, and the muscles still more numerous, and each so well disposed for motion, be adjusted without a superior knowledge in mechanics? The eye, so admirably adapted to light, and appropriated to vision, was it formed without a knowledge of optics? or the ear without the science of sounds? Even our inclinations and passions, those sources of so much apparent ill, are by the Deity providentially rendered the means of our preservation, both as individuals and a race; and the selfish and social affections, like centripetal and centrifugal forces, conduct us with proper force, to the end intended by our Maker to be produced by them. Yet the love of life and all its enjoyments, the fear of death and all its dreadful harbingers, and the social affections and all their endearments, would not have been sufficient security for our carrying on the *vital motions* with that constancy and uniformity necessary to the preservation of life, if thus engaged these motions had depended upon our will and choice. Reason would have deliberated concerning them with too much slowness, and volition would have executed often with a dangerous and fatal caprice. For, if the heart had been subject to the soul's authority, as much as the voluntary muscles are; if its motions could have been suspended or stopped with the same facility, death would then have cost us no painful pang; and, whenever the body was tortured with disease, and the mind in anguish from grief or disappointment, a remedy so easily applied might have been too frequently resorted to, and yet more unfortunate beings might have rushed uncalled into the presence of Him who stationed us for the wisest reasons here on earth.—The preservation of life, therefore, greatly depends on our *vital motions* being entirely subject to the wise government of the Author of our lives, who charges Himself with the immediate care of them and of us. All this, when attentively considered, must affect us with a sense of God's goodness; who, respecting the imbecility of man's nature, hath been pleased, by appetites and passions, to excite him to acts of self-preservation; where the violence of these might have been hurtful, no less than the slowness and instability of reason, hath taken our safety under his more immediate direction. To attribute contrivances like these, and even understanding itself, to unintelligent causes, rather than to the all wise Parent of Nature, seems an incomprehensible perversion of reason and philosophy. That mind must be strongly prepossessed and bewildered with false science, which rather seeks for the cause of these involuntary motions in dead matter, organization, chance, necessity, something that, without knowledge or power, acts wisely and powerfully, than in the great *fountain of power, wisdom, and animation.*

If chance could be supposed to produce a regular determinate action, yet it is beyond the highest degree of credulity, to suppose it could continue this regularity for any time. But we find it remains through life, independent of our will; and the same incessant vital actions have been carried on from the commencement of the world. It is thus that the sun's influence upon the earth hath ever been regular. The production of trees, plants, and herbs ever uniform. Every seed produces now the same fruit it ever did. Every species of animal life is still the same.

Could CHANCE continue *this regular arrangement?* Could any thing continue it, but the hand of an OMNIPOTENT CREATOR?

The human body is exalted to a most intimate and *personal union* with the eternal SON of GOD. He who decorated the heaven with stars, and crowned the stars with lustre; *He vouchsafed to be made flesh, and was found in fashion as a man.* Nay, this is even *now* the apparel of that divine and adorable PERSON. He is clothed with our nature; he wears our very limbs; and appears in the dress of humanity, even at the right hand of GOD, and at the head of all the heavenly hosts.

What think you of another privilege mentioned by the Apostle? "*Your bodies are the temple of the* HOLY GHOST." Not your souls only, but your very bodies are the shrine in which *the high and* HOLY ONE, *that inhabiteth eternity*, condescends to dwell. HE, who sitteth between the cherubim and walketh in the circuit of the skies, is pleased to sanctify these earthly tenements for his own habitation. And is not this a *much grander* embellishment, than all their matchless contrivance and masterly workmanship?

Nor must I omit the dignity—the transcendant dignity, which is reserved for these systems of flesh at the *resurrection* of the just. They will then be refined and improved into the most perfect state, and the most beauteous form; surpassing whatever is resplendent and amiable in the most ornamental appearances of material nature. They will be purer than the unspotted firmament; brighter than the lustre of the stars; and, which exceeds all parallel, which comprehends all perfection, they will *be made like unto* CHRIST's *glorious body;* like that incomparably glorious body which the blessed JESUS wears in his celestial kingdom, and on his triumphant throne.

When we add all these *magnificent prerogatives* which are revealed in Scripture, to all those *inimitable niceties* which are displayed by anatomists, what thankfulness, what admiration can equal such a profusion of favours?

Say why was man so eminently rais'd
Amid the vast creation, why ordain'd
Through life and death to dart his piercing eye,

With thoughts beyond the limit of his frame?
But that the Omnipotent might send him forth,
In sight of mortal and immortal powers,
As on a boundless theatre, to run
The great carreer of justice; to exalt
His generous aim to all diviner deeds;
To chase each partial purpose from his breast,
And through the tossing tide of chance and pain,
To hold his course unfaltering, while the voice
Of Truth and Virtue up the steep ascent
Of nature, call him to his high reward,
The applauding smile of Heaven.—AKENSIDE.

ON

HYGIEINE;

OR,

THE ART

OF PRESERVING HEALTH.

Reason's whole pleasure, all the joys of sense,
Lie in three words—Health, Peace, and Competence.
But Health, consists of temperance alone,
And Peace, O Virtue, Peace is all thy own.—Pope.

In the preceding chapter I have treated of the structure of the Human Body. I shall now show, that by due attention to the "Non-naturals," *air*, *food*, *exercise*, *sleep*, *evacuations*, and *passions*, we may go far to preserve this fabric in good health from the cradle to the grave. Nay, so wonderful is the body in its resources, its powers of renovation; and so sovereign are the virtues of the Non-naturals, that thousands are the instances of persons who, after having their health apparently ruined by an *abuse* of them, have, on returning to a wise and temperate use, entirely recovered their health, and attained to a most active and happy old age. Hence the reason mankind are so often sick, is because they so often err in the use of these the appointed preservatives of life and health.

To inculcate this truth more universally, I have introduced these disquisitions on the art of preserving health, and, to render them more acceptable to my readers, have enlivened them with appropriate illustrations, hoping thereby to make impressions as lasting as they are important.

OF AIR.

Thou cheerful guardian of the ruling year,
Whether thou wanton'st on the Western gale,
Or shak'st the rigid pinions of the North,
Diffuses life and vigour through the tracts
Of air, through earth and ocean's deep domain,
Without thy cheerful active energy
No rapture swells the breast; no poet sings;
No more the Maids of Helicon delight.
Come then with me, O! Goddess heavenly gay!
Begin the song; and let it sweetly flow,
And let it sweetly teach thy wholesome laws;
"How best the fickle fabric to support
Of mortal man: in healthy body how
A healthful mind the longest to maintain."—Armstrong.

As soon as an infant enters the world, the air rushes into its lungs, the circulation of the blood through that organ commences, and its life from that moment depends "*on the breath that is in its nostrils,*" which is incessantly taken in and thrown out of the lungs. While the child remained in the womb, it required no external air, because it existed in the blood which was received from its mother through the umbilical cord, or navel string. But as soon as the infant is born, the air is inhaled, and the circulation is determined through the lungs, which ever after continues in *that way*—and hence the necessity of breathing, which can never cease but with life.

Since, then, air is the main instrument of vitality, both to man and all creatures, it certainly must be a most pleasing and profitable study to acquire correct ideas of this great element.

By the unlettered part of mankind, the vast atmosphere which surrounds our globe, to the depth of two and thirty miles, is supposed to be one simple, colourless, invisible mass, without any essential difference of qualities, and without weight. But it is a gross mistake; for instead of being a simple uniform element, it is composed of several parts, some of which are widely different from each other. We have, too, numberless proofs of its weight; like other bodies falling to the earth, and becoming more dense as it approaches its centre. Every one knows that air on the tops of high mountains is much thinner than it is below in the valleys, but the weight of air is susceptible of demonstration by positive experiment.

Having exhausted a thin glass flask, and suspended it at one end of a balance, which being nicely counterpoised by weights in the other scale; this done, admit the air into the flask, into which it will rush with a noise, and though the flask was balanced before, it will now, upon admission of the air, preponderate. If the flask hold a qaurt, it will be found that the weight of the air it now contains is about seventeen grains, so that a quart of air weighs about seventeen grains.

We will mention another experiment, easily put into practice. Some water being poured into a saucer, burn a bit of paper in a tea-cup, which by rarifying, will exhaust and make a vacuum in the cup. Then while the paper is yet burning, turn it hastily down, paper and all, into the saucer, and the air without will press the water up from the saucer into the cup. The water will stand within the cup in a column; and if the cup were thirty-two feet high, and the air within it perfectly exhausted, the water would rise to that height in it, as we have said before. This satisfactorily accounts for the rising of water in pumps, or the standing of the quicksilver in the barometer.

If further proof be necessary to show the weight of that great ocean of air, which constantly surrounds us, let a man take a thick glass tube, such as is put over lamps, and place it upright on a table having a small hole in it for an air pump. Then let him place his hand closely over the top of the tube, while a friend with the pump extracts the air, and he shall find that as the air on the inside is removed, the air on the outside will press his hand down with much violence. Nor will he be surprised at this pressure of the air, when he comes to learn that a column or pillar of air, of only one inch diameter, and thirty-two miles high, which is the depth of the atmosphere from its top above the clouds to the ground, weighs about fourteen pounds. If the hand of the person, which covers the top of the tube, measure ten inches square, the pressure on it will be about one hundred and forty pounds—sufficient in all conscience to crush every bone in the hand. By the same token, a square foot of such a column of air would weigh near two thousand pounds, and as a common sized man measures about fourteen square feet, it is a fact, as curious as it is awful, that every such person bears constantly on his body a weight of fourteen tons, or twenty-eight thousand pounds of air. Some persons may doubt this from the conclusion that such a weight would crush every man to pieces. So it would, if it were to press solely on any particular part. But this conclusion instantly falls to the ground, when it is recollected, that this pressure of the air is uniform and equal all around him, the air pressing as strongly from below as from above; from one side as from another; thus causing the various pressures most exactly and admirably to counterpoise each other; of this we see a wonderful instance in the case of fishes in the ocean. One of these animals at a great depth under water, would be crushed to atoms, if all that heavy element pressed only on his back. But the God who made him has so kindly attended to his safety, as to cause the water that surrounds him from below to press upwards as strongly as that from above to press downwards. There is another reason why our bodies are not so sensible of the tremendous weight of air, which thirty-two miles deep presses upon us; it is simply this, all bodies are full of air; and the air within pressing against that without, preserves even the most delicate bodies uninjured. A bladder, or even a bag of oiled paper, if filled with water, remains perfectly unhurt, though a hundred fathoms below the surface of the sea; because the water within furnishes a full resistance to the water without. But take away this resistance from within, and you shall find that the slightest pressure will bring the two sides together.

According to the late discoveries in Chymistry, the atmosphere consists of *three* different species of air—namely, pure, respirable, or dephlogisticated air; azotic, or phlogisticated air; and fixed, or carbonic acid air.

The proportion of the first, namely, pure or vital air, consists, according to the French Chymists, who have given it the name of *Oxygen*, of 27 or 28 in the hundred parts; the second, the *Azote* of the French, of 72 or 73 in the hundred; and the third, namely, the *Carbonic acid air*, of about one part only in the hundred.

Oxygen is much better adapted to the respiration of animals than common atmospheric air. If two animals be enclosed in vessels, one of which contains pure *Oxygen* and the other common atmospheric air, in proportions equal to the size of the animals, the former in the *Oxygen* will be found to live six or seven times as long as the latter in common air. It is properly this Oxygen which we inspire, and which is the grand support of animal life. Persons apparently dead, or in a state of suffocation, have been instantly restored to life, by its influence; and from the corresponding testimony of several respectable physicians, it appears to have been employed with advantage in many obstinate diseases. The celebrated Ingenhouz, therefore, gave it the name of *vital air*. It promotes combustion in a very high degree. A candle will burn in it from six to seven times longer than in common air, with a much greater degree of heat, and a more brilliant flame. Bodies in a glowing state are immediately inflamed, when put into Oxygen gas; and even metals, which are not very fusible, are melted in it with the greatest facility.

Azote, by others called phlogisticated, mephitic, corrupted, or suffocative air is absolutely unrespirable, and not miscible with water. It arises from the change which atmospherical air undergoes in every process of combustion, putrefaction and respiration, whether produced by nature or art.

Azote enters into no combination with water, but may be rendered less hurtful by shaking it with that fluid. This accounts in some measure for the salubrity of the sea-air. It greatly promotes the growth of plants, and readily accumulates in apartments filled with people, or containing articles fresh painted with oil colours, or in which strongly fragrant flowers are kept without having any accession of fresh air. We should be extremely cautious in entering such places, as diseases of the breast and lungs are too frequently the consequence of neglect or ignorance.

The *Carbonic acid air*, or *fixed air*, is miscible with water, but in its pure state is equally unrespirable as the Azote. It derives its origin, partly from the vinous fermentation of vegetables and some animal substances, and partly from the mild alkaline salts and earths combined with acid. Much of this air abounds in mines, where it frequently distresses the workmen by its suffocating effect. It is also observed in most mineral waters, where a stratum of it sometimes floats upon the surface of the well.—These waters, as well as fermented liquors which contain a considerable portion of fixed air, receive from it that well known pungency so agreeable to the palate. Hence flat and spoiled beer or wine, may be corrected and restored to its former briskness, by the addition of fixed air evolved from chalk and vitriolic acid; or by mixing it with new beer, or wine in a state of fermentation.

As this species of air quickly extinguishes fire, animals cannot live in it.

These three aerial bodies, though blended together, arrange themselves, in some degree, according to their specific gravities; that is, the proportion of *azotic air*, which is the lighter body of the three, will be found most in the *upper part*, the *oxygen air* in the middle, and the *fixed air* will be found most in the *lower part* of the apartment. This occasions a circulation in the air, the *rarified air* will ascend, the *fixed air* sink, and the *colder* and *purer air* rush into the apartment through every crevice. To render the circulation of the air plain to sense, if the air of a room be heated by a fire, whilst the air in the next room is cold, and the door between opened, the *hot air* of one room being rarified, will pass through the upper part of the opening of the door into the cold room; and on the contrary, the *cold air* of the other room being heavier, will pass into the former through the *lower part* of the opening. This may be proved by applying a candle at the *upper* and *lower* openings between the two rooms. The direction of the flame of the candle will point out the *contrary currents of air*. It is for this reason, that when a fire is lighted in a chimney, a strong current of air enters the room, which may be felt by applying the hand near the key-hole, or other small openings if the door and windows be shut. A fire is said to purify a room; but this it does partly by drying the dampness of the room, and chiefly by promoting the circulation of the air. The fire does not perform such service by purifying the bad air, but by removing it, and substituting that which is fresh and wholesome. Hence it appears that those persons are mistaken, who are over anxious to keep air from the apartments of convalescent persons, studiously stopping, *by list*, *linings*, and *sand bags*, *all the smallest openings that admit fresh air.*

Unless the air were constantly renewed, persons would be exposed to the most fatal accidents in large assemblies or crowded rooms.

A rout was lately given at a celebrated bathing-place, or spring. The room was small and the company very numerous. They had not been long seated at the card tables, before a young gentleman and lady, both in delicate health fell into a swoon. The doors and windows were immediately thrown open, to afford fresh air, which quickly dissipated the alarm, by reviving the young invalids. A physician present, telling one of his medical companions how severely he himself had suffered from the air of that *vile oven*, and that he had made up his mind to write a bitter phillippic against *Routs*, was archly answered by his friend:— " Let them alone doctor, how *otherwise* should twenty-six physicians subsist in this place?"

A further illustration: Take a room thirty feet by twenty-five, and thirty feet high, capable of containing one hundred persons. Now, since each person consumes about five cubic feet of air in an hour, that is, deprives such a quantity of air of its oxygen, or *vital* *principle*, it would follow, that, as such a room could contain only twenty-two thousand five hundred cubic feet of air, unless the air was constantly renewed, it would be rendered completely mephitic or noxious in about *four hours and a half*, and it is probable that the greater part of the company would be seriously incommoded, or even perish long before that time.

The following affecting narrative is a melancholy confirmation of this fact. In the summer of 1756, the British settlement of Calcutta, in India, was attacked by the natives under the viceroy Rajah Doulah, a young man of the most violent passions, and without the least sense of honour or humanity. After a most obstinate resistance, the little garrison surrendered themselves prisoners of war, on a solemn promise from the Rajah of the most honourable treatment. But no sooner had the monster got them in his power, than, utterly regardless, of that due to honour, humanity, and a brave enemy, he barbarously drove them all into a dark shallow vault under ground, called *the black hole*, only eighteen feet square. The number of the unfortunate men, thus cruelly immured, was one hundred and forty-six, with their gallant commander, Colonel Holwell, the historian of the following tragedy. The humane reader may form some idea of one hundred and forty-six poor fellows, many of them badly wounded and bleeding, and all worn out with the fatigue, and covered with the dust and sweat of a hard day's fighting, crammed together, on a *hot sultry* evening, into a small dirty hole, eighteen feet square, with only two little windows, and those obstructed by strong iron bars.

A *profuse sweat* quickly broke out on every individual, attended with an *insatiable thirst*, which became the more intolerable as the body was drained of its moisture. It was in vain they stripped off their clothes, or fanned themselves with their hats.

A *difficulty in breathing* was next observed, and every one panted for breath. Colonel Holwell, who was placed at one of the windows, called to the sergeant of the guard, and after striving to excite his compassion by drawing a pathetic picture of their sufferings, promised him a thousand rupees in the morning, provided he could find means to remove some of his people into another place of confinement. The sergeant, allured by the promise of so mighty a reward, assured him he would use his utmost endeavours, and retired for that purpose.

What must have been the impatience, at this time, of these unfortunate objects?

In a few moments the sergeant returned, with the woful tidings, that the viceroy was asleep, and no man durst disturb his repose! The despair of the prisoners now became outrageous. They endeavoured to force open the door, that they might rush on the swords of the monsters, by whom they were surrounded, and who derided their sufferings; but all their efforts proved ineffectual. They then used execrations and abuse to provoke the guard to fire upon them.

The captain of the guard was at length moved to compassion. He ordered his soldiers to bring some skins containing *water*, which by enraging the appetite, only served to increase the general agitation. There was no other way of conveying it through the windows, but by hats; and this mode proved ineffectual, from the eagerness of the wretched prisoners who struggled for it in fits of delirium. The cry of *water! water!* issued from every mouth. The consequence of this eagerness was, that very little fell to the lot even of those who stood nearest the window; and the most fortunate, instead of finding their thirst assuaged, grew more impatient.

The confusion soon became general and horrid: all was clamour and contest; those who were at a distance, endeavoured to force their passage to the window, and the weak were pressed down to the ground, never to rise again.

Colonel Holwell, observing now his dearest friends in the agonies of death, or dead, and inhumanly trampled on by the living, finding himself wedged up so closely as to be deprived of all motion, begged, as the last mark of their regard, that they would for one moment remove the pressure; and allow him to retire from the window, and die in quiet.

Even in such dreadful circumstances, which might be supposed to have levelled all distinction, the poor delirious wretches, manifesting a respect to his rank and character, immediately gave way, and he forced his passage into the centre of the place, which was less crowded, because, by this time, about one third of the number had perished, while the rest still pressed to both windows. He retired to a platform at the farther end of the room, and lying down upon some of his dead friends, recommended his soul to the mercy of its Creator.

Here his *thirst* grew insupportable; his difficulty in breathing increased; and he was seized with a strong palpitation at the heart.

These violent symptoms, which he could not bear, urged him to make another effort. He forced his way back to the window, and cried aloud, "*Water! for God's sake, a little water!*"

He had been supposed already dead by his wretched companions, but finding him still alive, they exhibited another extraordinary proof of regard to his person. "Give him water," they cried; nor would one of them attempt to touch it, until he had drunk. He now breathed more freely, and the palpitation ceased; but finding himself still more thirsty after drinking, he abstained from water, and moistened his mouth, from time to time, by sucking the *perspiration* from his shirt sleeves, which tasted soft, pleasant, and refreshing.

The miserable prisoners now began to perceive that it was *air*, and not *water* that they wanted. They dropt fast on all sides, and a strong steam arose from the bodies of the living and the dead, as pungent and volatile as hartshorn.

Colonel Holwell, being weary of life retired once more to the platform, and stretched himself by the Rev. Mr. Bellamy, who together with his son, a young lieutenant, lay dead, locked in each other's arms.

In this situation he was soon deprived of sense, and seemed to all appearance dead, when he was removed by his surviving friends to one of the windows, where the fresh air brought him back to life. The Rajah being at last informed that the greater part of the prisoners were *suffocated*, enquired if the chief were alive, and being answered in the affirmative, sent an order for their release, when no more than *twenty-three survived*, of one hundred and forty-six, who entered into this prison.

How many melancholy instances of a similar kind have occurred on board vessels engaged in that most abominable and diabolical traffic, the slave trade.

My soul is sick with every day's report
Of wrong and outrage with which earth is filled:
There is no yielding flesh in man's hard heart,
It does not feel for man. The nat'ral bond,
Of brotherhood is sever'd, as the flax
That falls asunder at the touch of fire.
He finds his fellow *guilty* of a *skin*
Not coloured like *his own;* and having power
To enforce the wrong, for such a *worthy cause*,
Dooms and devotes him as a lawful prey.
Thus man devotes his brother;
And, worse than all, and most to be deplored,
As human nature's broadest, foulest blot,
Chains him, and tasks him, and exacts his sweat
With stripes, that mercy with a bleeding heart
Weeps when she sees inflicted on a beast.
Then what is man? and what man seeing this,
And having human feelings, does not blush
And hang his head, to think himself a man?
I would not have a slave to till my ground,
To carry me, to fan me while I sleep,
And *tremble* when I wake, for all the wealth
That sinews bought and sold have ever earned.

COWPER.

To mention no other fact, a strong proof of the necessity of the frequent renewal of air may be found in the records of the Dublin lying-in hospital.

In this hospital two thousand nine hundred and forty-four infants out of seven thousand six hundred and fifty, died in the year 1782, within the first fortnight after their birth, which is nearly every third child! They almost all died in convulsions, or what the nurses call *ninth day fits*, because they came on nine days after their birth. Many of these children foamed at their mouths, their thumbs drawn into the palms of their hands, jaws locked; and faces swelled and blue, as though they were choked. The last circumstance led Dr. Clark to conclude that the rooms were too close and crowded. That benevolent physician contrived therefore air-pipes, by which the rooms were completely ventilated. The consequence was, a prodigious decrease in the mortality. It is almost unnecessary to mention the frequent and sudden deaths that have taken place from entering deep wells, cellars, and other confined places.

Three poor men at Denton, Maryland, having nearly completed a deep well, quitted their work to go home to keep the *holy-days*. However, before they left the well, they covered the mouth of it closely. Carbonic acid gas settled at the bottom of it. After some time the unlucky well-diggers returned, and opening the well, very unsuspiciously let themselves down to their work. Two out of the three perished at the bottom; the other not going down escaped.

Lime-kilns, throwing off large quantities of fixed air, are extremely dangerous.

Two disorderly young women, after rambling a greater part of the night, crept, early in the morning, into a little hovel, contiguous to a *lime-kiln*, and fell asleep. The kiln being in high blast, diffused a portion of vapour through the crevices into the hovel; but the poor wretches were too sound asleep to be awakened. After some hours, the man, who had the care of the kiln, coming to look after his work, finding these women asleep, endeavoured to awake them, but *in vain!* They were taken immediately to the hospital. The one first conveyed recovered, but the other perished.

There is another species of mephitic air, which burns with a bright flame, and, if mixed with common air, instantly catches fire and explodes; hence it has received the name of "inflammable air."

Mines and coal-pits are frequently infested with this gas, which, being ten times lighter than common air, ascends to the upper region of the mine; and is called fire-damp. To discharge this, the miners are in the habit of crawling on their hands and feet, and, with a taper affixed to a long stick, set fire to it, which is succeeded by a terrible, and sometimes fatal explosion. This air is often generated in the stomach and bowels of animals both living and dead. A lighted candle held near, has often caused it to take fire.

The inflammable woman of Coventry, as described by Mr. Wilmer, appears to have reduced herself by *dram drinking*, to such a state, as to be capable of being set on fire, and burning away like a match: so eager, says the learned Dr. Beddoes, were the principles of which she was composed to combine with *oxygen*.

The *Russians* and *Germans* are frequently exposed to fainting during their cold season, from the *noxious* air of their stoves, and want of due ventilation. As soon as a person is discovered in this state, without sense and motion, he is instantly carried into the open air, and being stript, is rubbed very briskly with snow, or cold water, which generally recovers him, if breathing have not been suspended above an hour. Faintings, or suffocations from the fumes of charcoal, are commonly cured by cold water thrown on the patient.

As the mass of atmospheric air is incessantly corrupted by the respiration of men and animals, by the burning of so many natural and artificial fires, by the dissolution and putrefaction of innumerable substances, and by various other phlogistic or dis-oxygenating processes, it would at length become altogether incompetent for its original designation, if the all benevolent *Creator* had not provided effectual means for its improvement and renovation. Amongst the most powerful of these is the vegetation of plants. For this very important discovery, we are indebted to Dr. Priestly, who was so fortunate as to make it after he had long employed many fruitless attempts to correct impure air by artificial means. He found that air rendered deleterious by the breathing of animals, which had died in it, was again so completely restored by the vegetation of plants, that after the lapse of some days, an animal could live in it with equal ease, and for the same length of time, as before.

The ingenious philosopher, Dr. Ingenhouz, remarked, first, that most plants have the property of correcting bad air within a few hours, when exposed to the *light of the sun;* but that, on the contrary, *during the night*, or in the shade, they corrupt the air: second, that plants from their own substance afford a very pure air, or *oxygen*, when exposed to the rays of the sun; but a very impure air, or *azote*, at night, or in the shade: third, that not all parts of plants, but only the green stalks of leaves, produce this beneficial effect: fourth, that the disengagement of pure or vital air does not commence until the sun has been some time above the horizon; that it ceases altogether with the termination of day light; and that the disadvantage arising from the impure exhalations of plants, during the night, is far exceeded by the great advantage they afford during the day; insomuch, that the impure air generated by a plant during the whole night, scarcely amounts to a hundredth part of the pure vital air, or oxygen, exhaled from the same plant in two hours of a serene day. Thus, the atmosphere is constantly preserved in that state of purity, which is the most salutary both to animals and vegetables.

As the vegetable kingdom is renewed in spring, and as vegetation in general is most lively in that season, there can be little doubt, that the pure vital air is then most copiously evolved by means of the light and heat of the sun. Hence it follows that the air of spring is more wholesome than that of autumn, which is saturated with impure particles. The cold, however, and the frequent winds which prevail at a more advanced period, prove extremely efficacious in counteracting the baneful effects of corruption and putrefaction.

All *strongly scented bodies* are more or less pernicious; not only those of a fœtid, but even those of a fragrant smell. The latter, if too strong, are particularly dangerous, as a sense of disgust does not naturally incline us to avoid them. Hence people who carry large nosegays in the hot days of summer, or sleep in rooms decorated with flowers, are apt to feel themselves affected with head-achs, vertigoes, fainting fits, and even apoplexies, have been produced in persons of a plethoric habit.

The smell of roses, how pleasing soever to most persons, is not only odious, but alomst deadly to others.

Warm Air relaxes the body, and occasions a quicker circulation of the fluids: hence the tender and infirm suffer severely in hot weather; hence arise hysteric and hypocondriaic complaints, convulsions, and diarrhœas.

Cold renders bodies more compact, the appetite stronger, and digestion easier and quicker. On the contrary, the resistance of the fluid parts becomes so great, that even the increased powers of the solids cannot overcome it, if the cold be too violent. In winter the blood is much disposed to inflammations; hence stitches in the side, inflammatory sore throats, rheumatism, &c. In persons who take little exercise, the fluids are apt to stagnate, and the solids to chill during the winter. Upon the whole, however, the effects of cold weather may be rendered less hurtful, and even salutary to the body, if proper exercise be not neglected.

Damp or *Moist Air* suddenly relaxes and debilitates, retarding the circulation, checking the perspiration, and depressing the spirits. If damp air be accompanied with cold, it tends, by obstructing the perspiration, to throw the retained humours on the breast, throat, stomach, bowels, &c. occasioning sore throats, pleurisies, sick stomach, diarrhœas, &c. If damp air be accompanied with heat, it is still worse, by opening the pores, through which the moisture penetrates in the body, and predisposes every part of it to putrefaction and dissolution. This accounts for the great mortality prevalent during the hot season at Batavia, and some of the West India islands.

Dry and *Cool Air*, from its elasticity, promotes, in an extraordinary manner, the serenity and alertness of mind and body; and is, therefore, most agreeable and salubrious, both to the healthy and infirm.

Too sudden a transition from warm to cold air, or the reverse, is pernicious. But none have ever complained on leaving, however suddenly, the sickly air of the town, for the dry, pure, temperate air of the country. After all, the surest sign of good air in any place, is the longevity of its inhabitants.

The most certain marks, by which to distinguish whether the air in rooms be damp or not, are the following: The walls or tapestry change their colour; bread acquires a mouldy surface; sponges in the rooms retain their moisture; loaf-sugar turns soft; iron rusts; brass and copper acquire a green colour, and wooden furniture moulders and crumbles to pieces.

In cities the sitting rooms ought, if possible, to be above the ground floor, or on the second story, well ventilated by convenient doors and windows. And as to the bed-rooms, they ought assuredly to be in the most elevated stories of the house, that they may be as far removed as possible from that mass of azote, or deadly air which is so copiously generated in large towns, and which naturally settles near the ground.

Dr. Caldwell, lecturing on this subject, states that it was on this principle he was induced, contrary to the remonstrances of his family and friends, to keep his son in the third story of his house, during a very sickly season in Philadelphia, and adds that he could not avoid being sensibly struck with its happy effects in preserving his health. And I am convinced the excellent health my family enjoyed, during eight or nine years' residence in Savannah, was greatly owing to sleeping in large well aired chambers, three stories from the ground.

The airing of apartments should not be neglected, even in winter, as fires alone are not sufficient to carry off the corrupted air. If possible, we should not sit through the day in a room in which we have slept; as the bed clothes, and particularly feather beds, very slowly part with the exhalations they have imbibed during the night. It farther deserves to be remarked, that all damp vapours are prejudicial; hence, keeping wet clothes in dwelling rooms should by all means be carefully avoided.

OF FOOD.

For this the watchful appetite was given,
Daily with fresh materials to repair
This unavoidable expense of life,
This necessary waste of flesh and blood.

Hence the concoctive powers, with various art,
Subdue the cruder aliments to chyle;
The chyle to blood: the foamy purple tide
To liquors, which through finer arteries
To different parts their winding course pursue;
To try new changes, and new forms put on,
Or for the public, or some private use. ARMSTRONG.

NATURE not only points out the *food* fit for infancy, but kindly prepares it. When the babe, just born into this cold world, is applied to its mother's bosom, it is first agreeably affected by warmth; next it is delighted with the odour of the milk; then gratified by the flavour of it; afterwards the appetites of hunger and of thirst afford pleasure by the possession of their objects, and by the subsequent digestion of the aliment; and lastly, the sense of touch is delighted by the softness and smoothness of the milky fountain, which the innocent embraces with its hands, presses with its lips, and watches with its eyes. Satisfied, it smiles at the enjoyment of such a variety of pleasures. It feels an animal attraction, which is love; a gratification when the object is present, a desire when it is absent, which constitutes the purest source of human felicity, the cordial drop in the otherwise vapid cup of life, overpaying the fond mother for all her solicitudes and cares.

Lo! at the couch where infant beauty sleeps,
Her silent watch the mournful mother keeps;
She, while the lovely babe unconscious lies,
Smiles on her slumb'ring child with pensive eyes,
And weaves a song of melancholy joy. CAMPBELL.

A mother who abandons the fruit of her womb, as soon as it is born, to the sole care of an hireling, hardly deserves that tender appellation. Nothing can be so preposterous and unnatural, as a mother abandoning the care of her child. If we search Nature throughout, we cannot find a parallel. Every other animal is the nurse of its own offspring, which thrives accordingly.

Connubial fair! whom no fond transport warms,
To lull your infant in maternal arms;
Who, blest in vain with tumid bosom, hear
His tender wailing with unfeeling ear;
The soothing kiss, and milky rill deny
To the sweet pouting lip, and glist'ning eye!
Ah! what avails the cradle's damask roof,
The eider bolster, and embroider'd woof!
Oft hears the gilded coach, unpity'd plains;
And many a tear the tassell'd cushion stains!
No voice so sweet attunes *his cares* to rest,
So soft no pillow, as his mother's breast! DARWIN.

It is in infancy and early age, that the foundation is laid for the many diseases arising from indigestion, found in almost every family. If children be fed immoderately, the first passages become too much distended, and the stomach, by degrees, acquires an unnatural craving for food, which must be satisfied, whatever be the consequence. These excessive supplies are not only unnecessary, but produce the most serious and fatal disorders.—There is a certain relation subsisting between what is taken in, and what is lost by the body. If we eat and drink much, we likewise lose much, without gaining any more by it than we might do by moderate meals. Eating too much retards the growth, and eventually diminishes the digestive power of the stomach. Nature is easily satisfied, and is always best provided if we do not obtrude upon her more than she is accustomed to. If we have, for some time taken little nourishment, nature becomes so habituated to it, that we feel indisposed as soon as the usual measure is transgressed; and both the stomach and its digestive powers are thereby impaired.

It would be impossible to lay down fixed rules, whereby to determine the salubrity or insalubrity of aliments, with respect to the individual.

Experience is, indeed, our chief guide upon this subject; for, such is the peculiarity of constitutions, that, the same article which will nourish and perfectly agree with one person, would prove highly pernicious to another. Let us, therefore, in the selection of our food, adopt that which long and careful observation has confirmed to be salutary, and avoid those things, however tempting to the palate, which we know to be injurious.

There are, however, articles of diet obviously improper to every one; which, though they may not manifest their ill effects immediately, yet, nevertheless, undermine and break down by gradual operation, the vigour of our systems, and entail upon us, with certainty, a train of chronic disorders, of all others the most troublesome and difficult to cure. The articles of this description are all high-seasoned dishes, and those which are composed of a great variety of ingredients. People in health require no excitement to the relish of good and wholesome meat; and to those in the opposite state, the luxuries of the table are poison.

The sad effects of luxury are these;
We drink our poison, and we eat disease.
Not so, O Temperance bland; when ruled by thee,
The brute's obedient, and the man is free:
Soft are his slumbers, balmy is his rest,
His veins not boiling from the midnight feast.
'Tis to thy rules, bright Temperance! we owe
All pleasures which from strength and health can flow;
Vigour of body, purity of mind,
Unclouded reason, sentiments refined;
Unmix'd, untainted joys, without remorse,
The intemperate sensualist's never-failing curse. DODD.

There are three kinds of *appetite:* first, the *natural* appetite—which is equally stimulated and satisfied with the most simple dish, as with the most palatable; second, the *artificial* appetite, or that excited by bitters, spirits, pickles, and other condiments, which remain only as long as the operation of these stimulants continues; third, the *habitual* appetite, or that by which we accustom ourselves to take victuals at certain hours, and frequently without any appetite. Longing for a particular food is likewise a kind of false appetite.

By the *true* and *healthy* appetite alone, can we ascertain the quantity of aliment proper for the individual. If, in that state, we no longer relish a common dish, it is a certain evidence of its disagreeing with our digestive organs. If, after dinner, we feel ourselves as cheerful as before it, we may be assured that we have taken a proper meal; for, if the proper measure be exceeded, torper will ensue, with indigestion, and a variety of unpleasant complaints.

When the tired glutton labours through a treat,
He finds no relish in the sweetest meat.
Then hear what blessings *Temperance* can bring,
Those blessings, only, form my cause to sing;
First *Health*—the stomach cramm'd from every dish,
A tomb of roast and boil'd, of flesh and fish,
Where *bile* and *wind*, and *phlegm* and *acid* jar,
And all the man is one intestine war,
Remembers well the school-boy's simple fare,
The temperate sleeps, and spirits light as air. POPE.

A *decent*, well-furnished and hospitable table, is very commendable in those who can afford it. It speaks the greatness of their minds, the goodness of their natures, and gains the blessing of the poor and needy, where they are charitably allowed to come in for a share; but, when feasting runs into excessive luxury and vain expense, it reproaches the author of it with prodigality and folly; for no money can be so truly said to be thrown away, as that which is superfluously spent upon the belly.

It was a maxim of Socrates, "that we ought to eat and drink to live, and not to live in order to eat and drink." Temperance is the preservation of the dominion of soul over sense, of reason over passion. The want of it destroys health, fortune and conscience.

Chremes, of Greece, though a young man, was very infirm and sickly, through a course of luxury and intemperance; and subject to those strange sorts of fits which are called trances. In one of these, he thought that a philosopher came to sup with him; who out of all the dishes served up at the table, would only eat of one, and that the most simple; yet his conversation was sprightly, his knowledge great, his countenance cheerful, and his constitution strong. When the philosopher took his leave, he invited

Chremes to sup with him at a house in the neighbourhood; which also took place in his imagination; and he thought he was received with the most polite and affectionate tokens of friendship; but was greatly surprised, when supper came up, to find nothing but milk and honey, and a few roots dressed up in the plainest manner, to which cheerfulness and good sense were the only sauces. As Chremes was unused to this kind of diet, and could not eat, the philosopher ordered another table to be spread more to his taste; and immediately there succeeded a banquet composed of the most artificial dishes that luxury could invent, with great plenty and variety of the richest and most intoxicating wines.—These, too, were accompanied by damsels of the most bewitching beauty. And now Chremes gave a loose to all his appetites; and every thing he tasted raised extacies beyond what he had ever known. During the repast the damsels sung and danced to entertain him. Their charms enchanted the enraptured guest, already heated with what he had drunk. His senses were lost in extatic confusion. Every thing around him seemed Elysium, and he was upon the point of indulging the most boundless freedom: when lo! on a sudden, their beauty, which was but a visor, fell off, and discovered to his view forms the most hideous and forbidding imaginable. Lust, revenge, folly, murder, meagre poverty, and frantic despair, now appeared in their most odious shapes, and the place instantly became the direct scene of misery and desolation. How often did Chremes wish himself far distant from such diabolical company! and how dread the fatal consequences which threatened him on every side! His blood ran chill to his heart; his knees smote against each other with fear; and joy and rapture were turned into astonishment and horror.—When the philosopher perceived that this scene had made a sufficient impression on his guest he thus addressed him: "Know Chremes, it is I, it is Esculapius, who has thus entertained you; and what you have here beheld is the true image of the deceitfulness and misery inseparable from luxury and intemperance.—Would you be happy, be temperate. Temperance is the parent of health, virtue, wisdom, plenty, and of every thing that can render you happy in this world, or the world to come. It is, indeed, the true luxury of life; for without it life cannot be enjoyed." This said, he disappeared; and Chremes awaking, and instructed by the vision, altered his course of life, became frugal, temperate, industrious: and by that means so mended his health and estate, that he lived without pain to a very old age; and was esteemed one of the richest, best, and wisest men in Greece.

Such is the beautiful moral drawn by the pen of elegant and instructive fiction; with which, if there be any mind so insensible as not to be properly affected, let us only turn to that striking reality presented to us in the case of Lewis Cornaro. This gentleman was a Venitian of noble extraction, and memorable for having lived to an extreme old age; for he was above a hundred years old at the time of his death, which happened at Padua, in the year 1565. Amongst other little performances, he left behind him a piece entitled, "Of the advantages of a temperate life," of which we will here give our readers some account; not only because it will very well illustrate the life and character of the author, but may possibly be of use to those who take the *summum bonum*, or chief good of life, to consist in good eating. He was moved, it seems, to compose this little piece at the request, and for the benefit of some ingenuous young men, for whom he had a regard; and who, having long since lost their parents, and seeing him, then eighty-one years old, in a fine florid state of health, were desirous to know of him, what had enabled him to preserve, as he did, a sound mind, in a sound body, to so extreme an age. He describes to them, therefore, his whole manner of living, and the regimen he had always pursued, and was then pursuing. He tells them that, when he was young, he was very intemperate; that his intemperance had brought upon him many and grievous disorders; that, from the thirty-fifth to the fortieth year of his age, he spent his nights and days in the utmost anxiety and pain; and that in short, his life was grown a burthen to him. The physicians, however, as he relates, notwithstanding all the vain and fruitless efforts which they had made to restore his health, told him that there was one method still remaining which had never been tried, but which, if they could but prevail with him to use with perseverence, might free him, in time, from all his complaints; and that was a temperate and regular way of living. They added, moreover, that unless he resolved to apply instantly to it, his case would soon become desperate, and there would be no hopes at all of his recovery. Upon this, he immediately prepared himself for his new regimen; and now began to eat and drink nothing but what was proper for one in his weak habit of body: but this was at first very disagreeable to him. He often wanted to live again in his old manner; and did, indeed, indulge himself in a freedom of diet sometimes, without the knowledge of his physician; but, as he informs us, much to his own detriment and uneasiness. Driven, in the mean time, by the necessity of the thing, and resolutely exerting all the powers of his understanding, he at last grew confirmed in a settled and uninterrupted course of temperance; by virtue of which, as he assures us, all his disorders had left him in less than a year: and he had been a firm and healthy man, from thenceforward, till the time in which he wrote his treatise.

Some sensualists, as it appears, had objected to his abstemious manner of living; and in order to evince the reasonableness of their own, had urged that it was not worth while to mortify one's appetites at such a rate for the sake of being old, since all that was life, after the age of sixty-five, could not properly be called a living life, but a dead life. "Now," says he, "to show these gentlemen how much they are mistaken, I will briefly run over the satisfactions and pleasures which I myself enjoy in this eighty-third year of my age. In the first place, I am always well, and so active, withal, that I can, with ease, mount a horse upon a flat, or walk upon the tops of very high mountains. In the next place, I am always cheerful, pleasant, perfectly contented, and free from all perturbation, and every uneasy thought. I have none of that *fastidium vitæ*, that satiety of life, so often to be met with in persons of my age. I take a view of palaces, gardens, antiquities, public buildings, temples, fortifications, and endeavour to let nothing escape me which may afford the least amusement to a rational mind. Nor are these pleasures at all blunted by the usual imperfections of great age; for I enjoy all my senses in perfect vigour; my taste especially, in so high a degree, that I have a better relish for the plainest food now, than I had for the choicest delicacies formerly, when immersed in a life of luxury."

As a principal rule of diet, we ought to take food with an easy and serene mind, and to *eat slowly*. The stomach suffering in this case a very gradual distension, as the food has sufficient time to be duly prepared by mastication. To eat of one dish only seems most conformable to nature, and is doubtless, the means of procuring the most healthy fluids.

The diet ought not only to be such as is best adapted to the constitution, but likewise to be taken at regular periods; for long fasting is hurtful at any stage of life. All great and sudden changes of diet are universally dangerous, particularly from a rich and full diet to a low and sparing one. When, therefore, a change becomes necessary, it ought always to be made by degrees.

When a person has suffered so much from extreme hunger, much food must not be given him at once. By full feeding, thousands long starved at sea have been destroyed at once. Such persons should be supplied with liquid food, and that sparingly.

As soon as the food has entered the stomach, the important office of digestion begins. The vigour of the organs exerted on this occasion, ought certainly not to be abridged by violent exercise; but muscular and robust people feel no inconvenience from gentle motion about *one* hour after the heaviest meal. But as the whole process of digestion is of much longer duration than is generally imagined, the afternoon hours cannot be employed so advantageously to health in any labour requiring strong exertions.

In violent exercise, or an increased state of perspiration, the fluids are propelled to the external parts, and withdrawn from the stomach, where they are indispensable to assist the proper concoction.

Exclusive of the quantity and quality of food, great attention is due to the kind of it in particular constitutions. Animal food in general is more nourishing than vegetable, and, when fresh, is likewise more easy of digestion. On this account, it generally agrees best with delicate and weak constitutions.

But the flesh of young animals, with a proportionate quantity of well boiled and wholesome vegetables, is the best diet adapted to our system. In summer it is advisable to increase the proportion of vegetable food, and to make use of ripe fruit. With regard to our food, however, in quantity and quality, it should be proportioned to our exercise. The labourer, who is perpetually toiling from morning till night, could not subsist on food appropriated to those who pursue not the severer exercises of the body. His diet must be of the courser kind; such as salted meats or fish, cheese, corn bread, potatoes, onions and peas, and these in pretty large quantities.

On the whole, it will be found to be the safest, both in health and sickness, to regulate our diet with simplicity; ever bearing in mind that a preference is to be given to such articles as our personal knowledge has demonstrated to be the most congenial to our constitutions and habits.

In our aliment, an essential part is *drink*, the use of which is indispensable to the digestion of food.

Water, the basis of our drinks, should be carefully obtained in its highest purity. The best water is that which is pure, light, and without any particular colour, taste, or smell. Where water cannot be obtained pure from springs, wells, rivers, or lakes, care should be taken to deprive it of its pernicious qualities, by boiling and filtering, but most effectually by distillation. Any putrid substances in the water may be corrected by the addition of an acid. Thus half an ounce of alum, in powder, will make twelve gallons of corrupted water pure and transparent in two hours, without imparting a sensible degree of astringency. Charcoal powder has also been found of great efficacy in checking the putrid tendency of water. To the same purpose, vinegar and other strong acids, are well adapted.

Whatever kind of drink is used, it ought to be taken always in a moderate quantity. Too much drink, even of water, innocent as it is, tends to oppress and weaken the stomach, of course to generate acidities and flatulence.

Some advise us never to drink without eating something, but he who drinks only when nature requires it, has no occasion to eat every time he drinks. Persons, on the contrary, once accustomed to drink more than is necessary, or to make use of hot, stimulating, and intoxicating liquors, would do well always to eat some bread, or other solid food, along with them.

An undue proportion of drink renders the mass of blood too thin and watery, and occasions a general debility of the body. On the other hand, too little drink renders the blood thick and viscid, and weakens the digestive powers. Light and well fermented beer, is a wholesome, and, at the same time, diluent species of nourishment.

Cider, when properly fermented and pure, is also a pleasant and wholesome liquor. On the contrary, when it is new or tart, we cannot recommend it as a salubrious beverage.

Wine, when pure, and used in moderation, certainly conduces to health, especially in weak and languid habits. See Vine, Mat. Med.

Ardent Spirits, when properly diluted, are likewise an excellent beverage and antiseptic. These liquors are of considerable service in preventing the bad effects of a moist and cold atmosphere, pestilential vapours, damp military camps, unclean occupations, and, occasionally too, of a temporary abstinence from food.

But as the infusion of too great a quantity of oil immediately extinguishes the lamp, the light of reason, and the lamp of life itself, are frequently suffocated, and put out forever, by an imprudent use of either wine or spirits.

Tea is considered by some as being highly injurious, while others have either asserted its innocence, or even ascribed to it extraordinary virtues. When taken in a large quantity, or very strong, and at a late hour, it often produces watchfulness; but if used in moderation, it greatly relieves an oppressed stomach, and pains of the head. It ought, however, to be made of a moderate strength, otherwise it certainly affects the nerves. Hypocondriac and hysteric people are much deceived in their opinions of the efficacy of tea; for all the evils arising from weak stomachs and flatulency, of which they complain, are certainly increased by tea, especially if taken in large and strong quantities. The cold stomach which they propose to warm by it, is a mere phantom of the brain; for this sensation of cold, is nothing but relaxation, which, instead of being removed by hot liquors, is assuredly increased by them.

Coffee promotes digestion, and exhilarates the animal spirits; but an excessive use of it, like tea, affects the nerves, occasions watchfulness, and trembling of the hands. As possessing excellent antispasmodic virtues, it is a favourite beverage with the hypocondriac and hysteric.

Chocolate is nutritious and wholesome, if taken in small quantity; but to the corpulent and weak, particularly those with whom a vegetable diet disagrees, it is generally hurtful.

OF EXERCISE.

* * * * * * By health the peasant's toil
Is well repaid, if exercise were pain
Indeed, and temperance pain. By arts like these
Laconia nursed of old her hardy sons;
And Rome's unconquered legions urged their way
Unhurt, through every toil in every clime.
Toil and be strong. By toil the flaccid nerves
Grow firm, and gain a more compacted tone;
The greener juices are by toil subdu'd,
Mellowed, and subtilis'd; the vapid old
Expell'd, and all the rancour of the blood.
Begin with gentle toils, and, as your nerves
Grow firm, to hardier by just steps aspire.
The prudent, even in every moderate walk,
At first but saunter, and by slow degrees,
Increase their pace. This doctrine of the wise,
Well knows the master of the flying steed. ARMSTRONG.

IT was a common saying among the ancients, that acute diseases are from heaven and chronic from ourselves. To die, says Dr. Johnson, is the fate of man; but to die with lingering anguish, is generally his own folly. Inactivity never fails to induce an universal relaxation of the contractile fibres. When these fibres are relaxed neither the digestion, the circulation, nor the *peristaltic motion* can be duly performed.

It is absolutely impossible to enjoy health where the perspiration also is not duly carried on; and that can never be the case, where exercise is neglected.

Indolence often originates from a mistaken education in which pleasure or flattery is made the immediate motive of action, and not future advantage, or what is termed duty. This observation is of great value to those who attend to the education of their own children. I have seen, says Dr. Darwin, one or two young married ladies of fortune, who perpetually became uneasy, and believed themselves ill, a week after their arrival in the country, and continued so uniformly during their stay; yet, on their return to London or Bath, immediately lost all their complaints. I was led to ascribe this to their being surrounded in infancy with menial attendants, who had flattered them into the exertions they then used; and that, in riper years, they became torpid for want of this stimulus, and could not amuse themselves by any voluntary employment; requiring ever after either to be amused by other people, or to be flattered into activity.

Dr. Johnson says, "Whenever chance brings within my observation a knot of young ladies, busy at their needles, I consider myself as in the school of virtue; and though I have no extraordinary skill in plain work or embroidery, I look upon their operations with as much satisfaction as their governess, because I regard them as providing a security against the most dangerous ensnarers of the soul, by enabling themselves to exclude idleness from their solitary moments, and with idleness, its attendant train of passions, fancies, chimeras, fears, sorrows and desires."

If sedentary employments be intermixed with a due quantity of exercise, they will never injure health.

Weak fibres are the constant companions of *inactivity*. Nothing but daily exercise in the open air can brace and strengthen the powers of the stomach, and prevent an endless train of diseases; which proceed from a relaxed state of that organ. We seldom hear the active and labourious complain of nervous diseases; which are reserved for the sons of idleness.

* * * * * * How happy he whose *toil*
Has o'er his languid powerless limbs diffused
A pleasing lassitude. He not in vain
Invokes the gentle deity of dreams.
By *toil subdued*, the warrior and the hind
Sleep *fast* and *deep*.—Their active functions soon
With generous streams their subtile tubes supply
Ere morn, the tonic irritable nerves
Feel the fresh impulse, and awake the soul.

ARMSTRONG.

Idleness is a servile, weak and degenerate habit; that of the mind being worse than that of the body.

A gentleman states, that, as he was sitting with some friends before the door of the Capitol, a beggar presented himself, who with sighs, tears and lamentable gestures, expressed his miserable poverty, saying withal, that "he had about him a private disorder, which shame prevented him from discovering to the eyes of men. They, pitying the case of the poor man, gave each of them something, and he departed. One amongst them sent his servant after him, to enquire what his private infirmity might be, which he was loth to discover? The servant overtook him; and desired that satisfaction; and having diligently viewed his face, breast, arms, &c. and finding all his limbs in good plight, "I see nothing," said he, "whereof you have any such reason to complain." "Alas!" said the beggar, "the disease that afflicts me is far different from what you conceive of, and is such as you cannot see. It is an evil that has crept over my whole body; passing through the very veins and marrow of me, in such a manner, that no one member of my body is able to take proper exercise, or do any work. This disease by some is called idleness." The servant having left him, returned with this account; which not a little amused his master and friends.

As idleness is the rust and bane of all human virtues, so, on the contrary, industry and diligence in business are conquerors of all difficulties; sweetening labour and pains, and giving satisfaction as well as profit, in the accomplishment of what is undertaken. When men work at their play, and play with their work, they invert the order of nature, as well as the Divine command, and must expect in the sequel to come home by Weeping Cross, because they have laboured in vain, and played the fool with themselves in neglecting to secure to themselves a comfortable subsistence. Among the Athenians and ancient Romans, there was a law exacting an account from every man *how he maintained himself and family;* and if unable to give a satisfactory answer, he was immediately banished with reproach, as a vermin that devoured what he had no right to, in being an unprofitable excrescence, contributing nothing towards the tranquility of the public.

A gentleman possessed of an estate of about two hundred pounds per annum, in land, kept the whole a great while in his own hands; but finding, nothwithstanding all his care and industry, that he still run behind hand, and at length obliged to sell half his estate to pay his debts, let the rest to a farmer by lease for twenty-one years, at an annual rent. His tenant thriving, and coming before the expiration of the lease, to pay his rent, he asked his landlord, "if he would sell the land he rented of him?" "Why," said he "wouldst thou buy it?" "Yes," said the farmer, "if you will part with it." "That is very strange," said the landlord. "Prithee tell me how it is, that I could not live upon twice so much being my own, and you upon half of it, though you pay rent for it, are able in less than twenty years to buy it?" "O Sir," said the farmer, "a few words make the difference. When any thing was to be done, you said, 'Go and do it,' and lay in bed or took your pleasure; but I always said, 'Come, let us go and do it,' and both assisted and saw my business done myself."

To show the absolute necessity of exercise in cold climates, we cannot omit relating the botanical excursion of Sir Joseph Banks, Dr. Solander, and others, on the heights of *Terra-del-Fuego.* Dr. Solander, who had more than once crossed the mountains dividing Sweden from Norway, well knowing that extreme cold produced a torpor and sleepiness almost irresistible, conjured the company to keep always in motion, whatever pain it might cost them, and whatever relief they might be promised by rest: "*Whoever sits down,*" said he, "*will sleep, and whoever sleeps will* *wake no more.*" Thus at once admonished and alarmed, they set forward, but while they were still upon the naked rock, and before they got among the bushes, the cold was so intense, as to produce the effects that had been most dreaded. Dr. Solander, himself, was the first who found the inclination, against which he had warned others, irresistible; and insisted upon being suffered to lie down. Sir Joseph Banks entreated and remonstrated with him in vain; down he lay upon the ground, though it was covered with snow; and it was with great difficulty that his friends kept him from sleeping. One of his black servants also began to linger. Partly by persuasion, and partly by force, the company made them go forward. Soon, however, they both declared, "they would go no farther." Sir Joseph Banks had recourse again to expostulation, but this produced no effect. When the black was told that if he did not go on, he would in a short time be frozen to death, he answered that he desired nothing so much as to lie down and die. The Doctor did not so explicitly renounce his life; saying, he could go on, but that he must first take "*some sleep*," though he had before told the company, that "to sleep, was to perish." Both in a few minutes fell into a profound sleep. After considerable exertions they happily succeeded in waking the Doctor, who had almost lost the use of his limbs, and the muscles were so shrunk, that his shoes fell from his feet; but every attempt to relieve the unfortunate black proved unsuccessful.

Since we have touched upon the subject of cold, we cannot forbear inserting the observations of the immortal Darwin.

Animal bodies resist the power of cold probably by their exertions: but if these increased exertions be too violent, so as to exhaust the power of the brain, the animal will probably sooner perish. Thus the moderate quantity of wine or spirit, repeated at proper intervals of time, might be of service to those who are long exposed to excessive cold, both by increasing the action of the capillary vessels, and thus producing heat, and perhaps by increasing in some degree the secretion of sensorial power in the brain. But the contrary must happen when taken immediately, and not at due intervals. A well attested story was once related to me of two men, who set out on foot to travel in the snow, one of whom drank two or three glasses of brandy before they began their journey, the other contented himself with his usual diet and potation: the one perished, in spite of every assistance his companion could afford him, and the other performed his journey with safety. In this case the power of the brain was exhausted by the unnecessary motions of incipient intoxication by the stimulus of the brandy, as well as by the exertions of walking, which so weakened the dram-drinker, that the cold sooner destroyed him; not having power to produce sufficient muscular or arterial action, and in consequence sufficient heat to supply the great expenditure of it. Hence the capillaries or smaller vessels of the skin, first ceased to act, and became pale and empty; next those which are immediately associated with them, as the extremities of the pulmonary artery, as happens on going into the cold bath. By the continued inaction of these parts of the vascular system, the blood becomes accumulated in the internal arteries, and the brain is supposed to be affected by its compression; because these patients are said to sleep, or to become apoplectic, before they die.

Travellers, benighted in deep snow, might frequently save themselves by lying down on the dry ground, and suffering themselves to be entirely covered with the snow, except a small hole for air. The ground being usually at the 40th degree of cold, that is, eight degrees above freezing, and the snow in contact with their clothes, thawing and contracting into the snow next to it, would form above them a close, dry cover let, that would perfectly exclude the external cold, and place them in a situation almost as warm as a bed!

My reverend and worthy friend, Dr. Andrew Hunter, of Washington, overcome with the fatigues of a long day's march, during the revolutionary war, threw himself down with the rest of the army, on the cold frozen ground. His only cover was a blanket, and a saddle his pillow. Instantly his wearied senses were locked up in sleep so sound, that he never felt the cold snow, which presently began to fall in heavy flakes upon him. Next morning when he awoke, he was astonished at his situation—a heavy fall of snow a foot deep had completely covered him, through which the heat of his breath, melting the snow as it fell, had formed a nice opening. Having raised his head, and seeing his comrades still asleep, he laid himself down to enjoy a little longer his singular bed, which he declared was very pleasant.

If these facts were more generally known, they might save the lives of many valuable citizens.

OF SLEEP.

The shades descend, and midnight o'er the world
Expands her sable wings. Great Nature droops
Through all her works. Now happy he whose toil
Has o'er his languid powerless limbs diffused
A pleasing lassitude: he not in vain
Invokes the gentle Deity of dreams.
His powers the most voluptuously dissolve
In soft repose: on him the balmy dews
Of sleep with double nutriment descend. ARMSTRONG.

"TIRED Nature's sweet restorer, balmy sleep," cannot be dispensed with. It introduces a most welcome vacation, both for the soul and the body. The exercises of the brain and the labours of the hands, are at once discontinued; so that the weary limbs repair their exhausted vigour, while the pensive thoughts drop their load of sorrows, and the busy ones rest from the fatigue of application. Most reviving cordial! equally beneficial to our animal and intellectual powers.

Since sleep is so absolutely necessary, so inestimably valuable, observe what a fine *apparatus* Almighty Goodness has made to accommodate us with the balmy blessing. With how kind a precaution he removes whatever might obstruct its access, or impede its influence! He draws around us the curtain of darkness, which inclines to drowsiness, and conceals every object that might too strongly agitate the senses. He conveys *peace* into our apartments, and imposes silence on the whole creation. May we not discern in this gracious disposition of things, the tender cares of an affectionate *Mother*, who hushes every noise, and excludes every disturbance, where she has laid the child of her love to rest? *So*, by such soothing circumstances, and gentle working opiates, He *giveth to his beloved*, *sleep*.

No sooner does the morning dawn, and day-light enter the room, than this strange enchantment vanishes. The man awakes, and finds himself possessed of all the valuable endowments which for several hours were suspended or lost. His sinews are braced, and fit for action. His senses are alert and keen. The romantic visionary heightens into the master of reason, and the frozen or benumed affections melt into tenderness, and glow with benevolence.

* * * * * * * O sacred rest!
Sweet pleasing sleep! of all the powers the best;
O peace of mind! repairer of decay!
Whose balms renew the limbs to labours of the day,
Care shuns thy soft approach, and sullen flies away.

DRYDEN.

If sleep do not pay the accustomed visit, the whole frame of man will in a short time be thrown into disorder; his appetite cease, his spirits dejected, and his mind, abridged of its slumbering visions, begin to adopt waking dreams. It is in vain that all light is excluded, all sound removed, and books of entertainment read, the restless and busy mind still retains its former activity, and Reason, that wishes to lay down the reins, in spite of herself, is obliged to maintain them. This is strongly instanced by Shakspeare, in the soliloquy of King Henry.

How many thousands of my poorest subjects
Are at this hour asleep! Oh! gentle sleep,
Nature's soft nurse, how have I frighted thee,
That thou no more wilt weigh my eye-lids down,
And steep my senses in forgetfulness?
Why, rather, *sleep*, ly'st thou on smoky cribs,
Upon uneasy pallets stretching thee,
And hush'd with buzzing night-flies to thy slumbers;
Than in the perfum'd chambers of the great,

And lull'd with sounds of sweetest melody?
O thou dull god, why ly'st thou with the vile
In loathsome beds, and leav'st the kingly couch,
A watch-case or a common larum bell?
Wilt thou upon the high and giddy mast
Seal up the ship-boy's eyes, and rock his brains
In cradle of the wild imperious surge;
And in the visitation of the winds,
Who take the ruffian billows by the top,
Curling their monstrous heads, and hanging them
With deaf'ning clamours in the slipp'ry shrouds,
That, with the hurley, death itself awakes?
Canst thou, O partial sleep! give thy repose
To the wet sea-boy, in an hour so rude;
And, in the calmest, and most stillest night,
With all appliances and means to boot,
Deny it to a *King?* Then, happy low, lie down!
Uneasy lies the head that wears a cnown.

Excess of sleep is not less prejudicial to health than the want of it. The whole body sinking gradually into a complete state of inactivity, the solid parts become relaxed, the blood circulates slowly, and remains particularly long in the head; perspiration is disordered, the body increases in fat, and rendered incapable of being the medium of mental exertion, the memory is enfeebled, and the unhappy sleeper falls into a lethargic state, by which his sensibility is, in a great measure, destroyed.

Sleep, immediately after supper, is apt to occasion the night-mare, or a stagnation of the blood, which, by its pressure, produces the sensation or idea of this troublesome bed-fellow. It is principally the nervous, the debilitated, and those of an impaired digestion, who are visited by such terrific dreams.

The proper duration of sleep, in youth and adults, is usually settled at six or seven hours; in children and the aged, from eight to nine hours. The more bodily weakness we feel, the more we may indulge in sleep; provided it be refreshing. If people in a state of health be perfectly cheerful in mind and body, when they awake, this is the most certain criterion that they have slept sufficiently. Though weakly persons may have a disposition to sleep during the day, they ought not to sleep long, since it tends to increase their languor and relaxation. Whether to sleep after dinner be advisable, must be decided by a variety of concurrent circumstances; age, climate, and the like. However, a sleep after dinner ought never to exceed a half, or one hour at most; and it is also much better sitting, than lying horizontally; for, in the latter case, we are subject to determinations of the blood towards the head, and consequently to head-ach, and risk apoplexy. In the evening we should eat light food, and not retire to rest till two or three hours after supper. The mind ought to be serene and cheerful previous to going to rest, and we should then avoid gloomy thoughts; so that we may as much as possible guard against dreams, which always interfere with the refreshing influences of sleep.

Sleep, accompanied either with talking or walking, called somniloquism and somnambulism, is a transient paroxysm and delirium. When they are induced by an increase of stimuli, whether corporeal or mental, blood-letting, gentle cathartics, vegetable diet, with moderate exercise, are the best remedies; but when they arise from a diminution of customary stimuli, a glass or two of wine, a draught of porter, or a dose of laudanum at bed-time, and a change of air, will generally succeed.

The *Feather-beds*, in which we usually sleep, are certainly not as healthy as mattresses in summer.

But, as many individuals have not sufficient resolution to use these, they ought to be particular in having their feather-beds frequently shaken and aired. Farther, it is highly improper to sleep in beds overloaded with clothes; they heat the blood more than is consistent with health, and produce an immoderate and enervating perspiration, which still more weakens the organs already relaxed by sleep. The custom of sleeping with the curtains drawn close, is pernicious to health, because the copious exhalations, which then take place, cannot be properly dissipated, and are consequently re-absorbed. It is also very imprudent to cover the head with the bed-clothes. The old and abominable custom of warming the bed, likewise deserves to be condemned; as it has a direct tendency to produce debility.

A spacious and lofty room should always be chosen, if practicable, for a bed-chamber, and attention paid to the admission of fresh air, even during the night, in warm weather. Lastly, no candle or fire should be kept burning during the night in a bed-room.

ON EVACUATIONS.

> By subtle fluids pour'd through subtle tubes
> The natural, vital, functions are performed;
> By these the stubborn aliments are tamed,
> The toiling heart distributes life and strength,
> These the still crumbling frame rebuild. ARMSTRONG.

THE evacuations of the body, from its superfluous, impure, and noxious particles, are no less necessary than its nourishment. The same power which changes and assimilates our food and drink, likewise affects the due and timely evacuation of the secretions. It is an object of the first consequence, that nothing remain in the body which ought to be evacuated; and that nothing be ejected, which may be of use to its preservation. How many persons do we find who complain of bad health, notwithstanding every attention they pay to air, aliment, exercise, and sleep; while others enjoy a good state of health, though totally careless with regard to these particulars, and all owing to a difference in the state of evacuations. If these be disordered, the most rigorous observance of dietetic rules is insufficient to insure our health; while on the contrary, most of those rules may be neglected, for some time, without any injurious consequences, if the evacuations be regular. Nature removes not only noxious matter, or such as is in a state of corruption, but likewise the useful fluids, if they become superabundant; for instance, the milk, semen, and blood. In such cases, therefore, these must be considered as objects of evacuation, equally natural and salutary.

Nature expels all crude and acrid substances by those three grand emunctories, the kidneys, bowels, and skin, and accordingly as they are disordered, diseases of different degrees of malignity and duration will necessarily ensue. Nature also frequently relieves herself by more unusual channels; such are the bleeding of the nose, in plethoric young men; the hemorrhoids, with which persons of a middle age are sometimes troubled; the various ulcers common to those whose fluids are in an impure state; the excretions of saliva, and the expectoration of others, &c. By a premature suppression of the troublesome, but salutary efforts of nature, great mischief may be produced to the individual.

Many persons perspire much under the arm-pits; others in the hands or feet; others again are subject to eruptions in the face, or different parts of the body: such canals, however, if nature be once accustomed to eject by them certain ill humours, cannot be suddenly stopped without considerable danger—cleanliness, in the strictest sense of the word, is almost the only safe remedy to counteract their fatal effects.

OF THE PASSIONS.

Passions, like aliments, though born to fight,
Yet mix'd and soften'd, in his work unite.
Love, Hope, and Joy, fair Pleasure's smiling train,
Hate, Fear, and Grief, the family of Pain;
These mix'd with art, and in due bounds confin'd,
Make, and maintain the balance of the mind.
The lights and shades, whose well accorded strife,
Gives all the strength and colour of our life. Pope.

Passions are the *active forces* of the soul: They are its highest powers, brought into movement and exertion. Like wind and fire, which are instrumental in carrying on many of the beneficent operations of nature, where they rise to undue violence, or deviate from their proper course, their path is marked with ruin: so are the passions either useful or destructive, according to their direction and degree.

Yes, yes, dear stoic! hide it as you can,
The sphere of pleasure is the sphere of man:
This warms our wishes, animates our toil,
And forms alike a Newton, or a Hoyle;
Gives all the soul to all the soul regards,
Whether she deals in planets, or in cards.

CAWTHORN.

OF LOVE.

Love is a passion by no rule confin'd,
The great first mover of the human mind;
Spring of our fate! it lifts the climbing will,
Or sinks the soften'd soul in seas of ill;
Science, truth, virtue, sweetness, glory, grace,
All are love's influence, and adorn his race,
Love too, gives fear, despair, grief, anger, strife,
And all the unnumber'd woes which tempest life. HILL.

LOVE, the most universal and grateful passion of the heart, is not only conducive to health, but contributes greatly to the happiness of every society in which it is introduced. A warm and reciprocal affection, between two virtuous lovers, may be considered the sweetest charm of life.

Where friendship full exerts her softest power,
Perfect esteem enlivened by desire
Ineffable, and sympathy of soul;
Thought meeting thought, and will preventing will,
With boundless confidence: for nought but love
Can answer love, and render bliss secure.
* * * * What is the world to them,
Its pomp, its pleasure, and its nonsense all!
Something than beauty dearer, should they look
Or on the mind, or mind-illumin'd face;
Truth, goodness, honour, harmony, and love,
The richest bounty of indulgent Heaven,

Meantime a smiling offspring rises round,
And mingles both their graces. By degress,
The human blossom blows; and every day,
Soft as it rolls along, shows some new charm,
The father's lustre, and the mother's bloom. THOMSON.

Love arises from a desire of what is beautiful and fair, and is defined to be an action of the mind, desiring that which is good. No one loves before he is delighted with the object, let it be what it will, by which means it becomes pleasing in our eyes, and begets a value and esteem in our affections. This amiable passion in many respects is very wonderful and unaccountable; it is of such power in its operation that it has often taken the diadem from kings and queens, and made them stoop to those of obscure birth and mean fortune. It wrests the sword out of the conqueror's hand, and makes him a captive to his slave. It has such a variety of snares to entangle the most wary, that few have at one time or other escaped them.

Eginardus was Secretary of State to Charlemain, and having placed his affections much higher than his condition admitted, made love to one of his daughters, who seeing this man of a brave spirit, and a suitable grace, thought him not too low for her, seeing merit had so eminently raised him above his birth. She loved him, and gave him free access, so far as to suffer him to laugh and sport in her chamber on evenings, which ought to have been kept as a sanctuary where reliques are preserved. It happened on a winter's night, Eginardus, ever hasty in his approaches, but negligent about returning, had somewhat too long continued his visit; and in the mean time a snow had fallen, which troubled them both. He feared to be betrayed by his feet, and the lady was unwilling that such prints should be found at her door. Being much perplexed, she did an act for her lover, very unusual for the daughter of one of the greatest men upon earth. She took the gentleman upon her shoulders, and carried him all the length of the court to his chamber, he never setting a foot to the ground, so that the next day no impression might be seen of his footing. It happened that Charlemain watched at his study this night, and hearing a noise, opened the window and perceived this pretty prank, at which he could not tell whether it were best to be angry or to laugh. The next day, in a great assembly of Lords, and in the presence of his daughter and Eginardus, he asked, what punishment that servant was worthy of, who made use of a king's daughter as a mule, and caused himself to be carried on her shoulders in the midst of winter, through night, snow, and all the sharpness of the season. Every one gave his opinion, and not one but condemned that insolent man to death. The princess and secretary changed colour, thinking nothing remained for them but to be flayed alive. But the Emperor, looking on his secretary with a smooth brow, said, "Eginardus, hadst thou loved the princess my daughter, thou oughtest to have come to her father, the disposer of her liberty; thou art worthy of death, but I give thee two lives at present; take thy fair portress in marriage; fear God, and love one another."

Though the female be the weaker sex, yet some have so repaid the weakness of their nature by an incredible strength of affection, that they have often times performed as great things as we could expect from the courage and constancy of the most generous amongst men. They have despised death, in whatever shape, and made all sorts of difficulties give way before its invincible force, which seemed proud to show itself most strong, in the greatest extremity of their husbands.

Arria, the wife of Cecinna Pætus, understanding that her husband was condemned to die, and that he was permitted to choose the manner of his death, went to him, and having exhorted him to depart this life courageously, and bidding him farewell, gave herself a stab into the breast with a knife she had hid for that purpose under her clothes; then drawing the knife out of the wound, and reaching it to Pætus, she said, "Vulnus quod feci, Pæte, non dolet, sed quod tu facies:" *The wound I have made, Pætus, smarts not; but that only which thou art about to give thyself.*" Whereupon Martial wrote the following epigram.

When Arria to her husband gave the knife,
Which made the wound, whereby she lost her life,
"This wound, dear Pætus, grieves me not," quoth she,
"But that which thou must give thyself grieves me."

Happy they! the happiest of their kind,
Whom *gentler stars unite*, and in one fate
Their hearts, their fortunes, and their beings blend.
'Tis not the coarser tie of human laws
Unnat'ral oft, and foreign to the mind,
That binds their peace, but harmony itself
Attuning all their passions into *Love*. THOMSON.

"It is this," says Lavater, "which has sweetened every bitter of my life; this has alone supported me, when the sorrows of a wounded heart wanted vent. When my best endeavours were rejected, when the sacred impulse of conscious truth was ridiculed, hissed at and despised, the tear of sorrow was ever wiped away by the gentle, tender, and affectionate address of a female mind, who has an aspect like that of unpractised virginity, which felt, and was enabled to efface each emotion, each passion in the most concealed feature of her husband's countenance, and by endearing means, without what the world would call beauty, always shone forth in countenance heavenly as an angel."

Serene in virgin modesty she shines,
And unobserv'd the glorious orb declines.
Oh blest with temper, whose unclouded ray
Can make tomorrow cheerful as to day:
She who ne'er answers till a husband cools,
Or if she rules him, never shows she rules;
Charms by accepting, by submitting sways,
Yet has her humor most when she obeys. POPE.

How delightful that sentiment, which, even in advanced life, inspires a passion perhaps more profound than it excites even in youth; a passion which collects into the soul all that time has robbed from the senses, and stripping life, in its last stages, of all gloom, unsociability and indifference, secures us the happiness of meeting death in those arms which sustained our youth, and entwined us in the ardent embraces of love.

O the sweet powerful influences of love! It is this that unites the interests as well as the hearts of lovers, and gives to each the joys and felicities of the other. And it is this which induces the delicate lady to forget better days, and to smile in poverty, and toil with the husband whom she loves. What charm then under HEAVEN can excel this noble passion? No pleasures are comparable to those that affect the heart, and there are none that affect it with such exquisite delight, as loving and being beloved by a worthy object. Ask the husband who is blest with an amiable wife, and he will tell you that the most delicious feeling his heart ever experienced were those of virtuous love.

Go gentle gales and bear my sighs along!
The birds shall cease to tune their evening song;
The winds to breathe, the waving woods to move,
And streams to murmur, *ere I cease to love.* POPE.

Some angry poets spit all their venom against loving husbands; but it no way depreciates virtue.

Virtue, the strength and beauty of the soul,
It pleases and it lasts; a *happiness*
That even above the smiles and frowns of fate
Exalts great nature's favourite;—a *wealth*
That ne'er encumbers, nor to baser hands
Can be transferred; it is the only good
Man justly boasts of, or can call *his own.*

ARMSTRONG.

A Neapolitan, being at work in a field bordering upon the sea side, his wife being some distance from him, was seized by some corsairs of Tunis, and carried on board their vessel. Missing his wife, and seeing a ship at anchor, he soon conjectured what the matter was, and throwing himself into the sea, swam to the ship, telling the captain, "He was come to take the same fate with his wife, for though he understood the hardship and misery he must undergo in slavery, his love had conquered all difficulties, he neither could nor would live but with her." The Turks, admiring the man's unaccountable affection, at their return told it to the King of Tunis, who pleasing himself with so singular an example of love and constancy, gave them both their liberties.

Bless'd is the maid, and worthy to be blessed,
Whose soul, entire by him she loves possess'd,
Feels every vanity in fondness lost,
And asks no power but that of pleasing most:
Her's is the bliss, in just return, to prove
The honest warmth of undissembled love;
For her inconstant man might cease to range,
And gratitude forbid desire to change.

Love is a vice only in vicious hearts. Fire, though the purest of all substances, will yet emit unwholesome and noxious vapours when it is fed by tainted matter; so love, if it grow in a vicious mind, produces nothing but shameful desires and criminal designs, and is followed with pain, vexation and misery. But let it rise in an upright heart, and be kindled by an object adorned with *virtue;* it is safe from censure.

Love, studious how to please, improves our parts
With polished manners, and adorned with arts.
It kindles all the soul with Honour's fire;
Curbs and restrains extravagant desire,
And to be chaste and kind does still conspire.
A just heroic passion that can find,
No room in any base degenerate mind. DRYDEN.

In propitious love the heart beats with joy; vivacity cheers the countenance, the eye is brilliant, society is courted, and all the benevolent affections are indulged. But disappointed love, on the other hand, is extremely detrimental. It depresses the spirits, enfeebles digestion, takes away the appetite, banishes sleep, and not unfrequently produces insanity. History affords many instances of mental derangement from *disappointed love.*—The following affecting cases deserve to be mentioned.

A German lady, of great beauty and accomplishments, having married a Hessian officer ordered to *America*, and not being able to acquire any tidings of him in her own country, came over to *England*. Here, she could only learn the destiny of her husband from those ships which had either transported troops to the continent or were bringing back the wounded. Day after day she wandered on the beach at *Portsmouth*, and hour after hour she wearied her eyes, bedewed with tears, in the vain expectation of seeing him. She was observed at the same spot, ere it was light, and watched each motion of the waves until the setting sun.—Then her haunted imagination presented him mangled with wounds, and the smallest gust of wind seemed to threaten her with an eternal separation. After eight months spent in this anxious manner, she learned that a vessel bringing some wounded Hessian officers had arrived. She kept at some distance, for fear of giving too great a shock to her husband's feelings, should he be among them. He was landed with others: she followed to the tavern. When she entered the room, he burst into a flood of tears. A lady was supporting him in her arms. What words or painter could represent the tragedy that followed! He had married in America, and this person was also his wife. He intreated for "*pardon*," was past reproach, for in a few minutes after he sunk into the arms of death. The lady, whose melancholy history we are recording, rushed from the room, and leaving her clothes and money at her lodging, wandered, she knew not whether, vowing, "that she would never enter house more, or trust man." She stopped at last near Bristol, and begged the refreshment of a little milk. There was something so attractive in her whole appearance, as soon produced her whatever she requested. She was young, and extremely beautiful; her manners graceful and elegant, and her countenance interesting to the last degree. She was alone, a stranger, and in extreme distress; she asked only for a little milk, but uttered no complaint, and used no art to excite compassion. Her dress and accent bore visible marks that she was a foreigner of superior birth. All the day she was seen wandering in search of a place to lay her wretched head; she scooped towards night a lodging for herself in an old hay stack. Multitudes soon flocked around her, in this new habitation, attracted by the novelty of the circumstance, her singular beauty, but, above all, the suddenness of her arrival. French and Italian were spoken to her, but she appeared not to understand these languages; however, when she was accosted in German, she evidently appeared confused, the emotion was too great to be suppressed, she uttered some faint exclamations in that tongue, and then, as if hurried into an imprudence, she attempted to be also without knowledge of this language. Various conjectures were instantly formed, but what seemed passing strange, was, her acceptance of no food, except bread or milk, and that only from the hands of females. On the men she looked with anger and disdain, but sweetly smiled, as she accepted any present from the other sex. The neighbouring ladies remonstrated with her on the danger of so exposed a situation, but in vain; for neither prayers nor menaces could induce her to sleep in a house.

Beneath a stack Louisa's dwelling rose,
Here the fair maniac bore four winter's snows,
Here long she shiver'd, stiff'ning in the blast,
And lightnings round her head their horrors cast;
Dishevell'd, lo! her beauteous tresses fly,
And the wild glance now fills the staring eye,
The balls fierce glaring in their orbits move,
Bright spheres, where beam'd the sparkling fires of love.

It may gratify the reader to learn, that it has been ascertained since her death, that this fair sufferer was the *natural daughter* of the Emperor Francis of Germany.

In W——, a small village in Saxony, there lived a poor, but honest and upright curate, who for many years had enjoyed without alloy, the tranquil pleasures of domestic happiness. He had a wife, and an only child, a daughter. Content in the sphere wherein they were placed, and unacquainted with the turbulent passions of the fashionable world, their days flowed quietly on in an uniform course of undisturbed felicity. The mother and daughter took a joint care of all the domestic concerns, and strove by every act of attention and love, to diminish the burden which the duties of the good old man imposed on him. Harriet, this was the name of his daughter, was in the strict sense of the word, the child after his own heart. He was unhappy if she were absent even for a few hours; she was, therefore, his constant attendant.—She was about eighteen years old, but had not yet experienced the inquietudes of that passion, which often exhibits itself in very early life in the great world; and her principles and mode of thinking were too noble and good to inspire her parents with even the slightest apprehensions as to the wanderings of her heart. But hear her history. Far different from the condition of the *Americans*, the Saxons are obliged, in time of peace, to receive the king's cavalry, which are quartered in different villages, where it is maintained at the expense of the poor *peasantry*. Most of the soldiers are riotous young men, who, by virtue of their profession and uniform, obtain entrance into the houses of all the peasantry, and even to the curates, to the great corruption of the innocent and virtuous manners of the country people. One of them, a handsome, but giddy young man, was quartered at W——, where he soon made the acquaintance of the good old parson. The young soldier had more culture of mind than is usually met with in such a class of men. He pleased the curate, who often invited him to the parsonage, and listened with pleasure to the histories of his battles, and warlike achievements.

The tender-hearted HARRIET found great entertainment in the company of the young warrior, and, like OTHELLO'S mistress, the story of his life, *the battles, sieges, fortunes that he had passed, the hair-breadth 'scapes, the moving accidents by flood and field*, won her heart.—Love had taken possession of her bosom, before she was aware of its approach. She blushed when he took her by the hand, and was unhappy when he left her. The soldier could not resist the beautiful girl, for his heart was formed for love. They therefore soon came to an explanation, of their mutual passion, which, for the present, they agreed to conceal from their parents, for fear that prudential motives would cause them to oppose it. They bound themselves to each other, however, by an oath, which, at the same time that it showed the strength of their affection, exhibited the most romantic turn of mind. They promised to marry as soon as he could attain the rank of sergeant-major, and agreed *that the one should destroy the other, who first failed in the engagement.* Thus matters stood, when, contrary to the wishes of the lovers, a lawyer from a neighbouring town applied to the father of HARRIET for the hand of his daughter. He was well received, and his views promoted by the old people; but when his intention was declared to the unfortunate girl, she fell into the arms of her father, as if struck with lightning, and, on her recovery, wept bitterly, entreating them not to encourage the addresses of this new lover. Her parents, being ignorant of the true cause of her aversion, thought that time would soon overcome it, and therefore gave their solemn promise to the lawyer to second his wishes. HARRIET, however, resisted every argument, and remained true to her promise; but her parents, at length growing tired of her opposition, determined to employ their authority, which at last prevailed. The young soldier soon received the intelligence, and instantly formed his desperate resolution, for without his lovely Harriet he could not live. A short time before the marriage-day, a dance was given in W——, in honour of the pair. To this he resorted, unable any longer to resist the desire of seeing once more his beloved. He concealed himself among the spectators until he saw her dance; which roused him to a state of fury. He ran home, took a pair of loaded pistols, and waited until the party broke up. It was a dark night, but he discerned the unhappy bride intended, and her bridegroom, walking hand in hand. He stepped up to her, and in a low voice, requested that she would indulge him with a moment's conversation. She disengaged her arm from that of the lawyer, intreated him to walk on, assuring him she would immediately return: but, alas! she was to return no more! A pistol was heard, and when her trembling friends reached the place, they found her weltering in blood, at the feet of her murderer. "Now art thou mine again," cried the soldier, in tones of horrid joy, and fled, but not to escape. He delivered himself to the officers of justice, and begged to be instantly executed, which event, indeed soon followed.

Learn parents, from this story, the danger of interfering with your children's affections in so serious an affair as marriage: for, as Shakspeare observes:

Marriage is sure a matter of more worth
Than to be subject for attorneyship;
For what is wedlock, forced, but a hell,

An age of discord and continual strife?
Whereas the contrary bringeth forth bliss,
And is a pattern of celestial peace.

The most dangerous effect of love is *jealousy*. It is the most vain, idle, foolish, and turbulent disease that ever assaulted and oppressed the mind of mankind. Of all the diseases of the mind, it is that which most things serve for aliment and fewest for remedy.

Bonaventur, sitting at a table, and looking earnestly upon a beautiful woman present, was asked by her husband, why he so gazed? He answered: "That he admired the excellency of the Creator by contemplating the beauty of the creature; and that if mortals were so amiable, how lovely should we be at the resurrection." This was an example, saith Boschier, that was rather to be admired than imitated; suitable to the golden age, and not this present iron age of the world, wherein jealousy may be compared to the Indian arrows, so envenomed, that if they prick the skin it is very dangerous; but if they draw blood, it is irrecoverably death: the first motions that rise from this root of bitterness have their evil effects; but where the disease is improved, it empoisons all our comforts, and throws us headlong into the most tragical resolutions.

The Marquis of Astorgas, of the family of Osorio, indulged himself in an illicit intercourse with a most beautiful young woman. His wife, on being informed of his intrigue, went immediately to the house where her husband's mistress lived, and murdered her in the most cruel manner. She tore her heart from her bosom, and took it home, ordering it to be hashed and served up to her husband for dinner.

After he had eaten of it, she asked him if it were good? and, on his answering yes, she said, she was not in the least surprised, for it was the heart of his mistress, whom he so dearly loved. At the same time, she drew from a cupboard the bleeding head of his murdered favorite, and rolled it on the table at which this unhappy lover was sitting with his friends.

His wife immediately departed, and took refuge in a convent, where she soon afterwards went mad with rage and jealousy.

Earth has no rage like love to hatred turn'd,
Nor hell a fury like a woman scorn'd.

DRYDEN.

The power of beauty is universally acknowledged, having been the object of love and admiration in all times and among all nations. But, alas! what is beauty without the graces of *virtue!*

In Italy there grows an herb called the Basilisco; it is sweet-scented enough, but, withal, has this strange property, that being laid under a stone in a moist place, in a few days it produces a scorpion. Thus, though the woman, in her first creation, was intended as a help for man, the partner of his joys and cares, the sweet perfume and relish of his days throughout his whole pilgrimage: yet there are some so far degenerated from their primitive institution, though otherwise of exterior beauty and perfection enough, that they have proved more intolerable than scorpions, not only tormenting the life, but hastening the death of their too indulgent husbands.

Not that my verse would blemish all the fair,
But yet, if some be bad, 'tis wisdom to beware;
And better shun the bait, than struggle in the snare.

DRYDEN.

Joan, grand-child to Robert, king of Naples, succeeded her grand-father in the kingdom of Naples and Sicily; a woman of beautiful person, and rare endowments of nature. She was first married to her cousin Andrew, a prince of royal extraction and of sweet disposition; but being lasciviously disposed, she grew weary of him, and caused him to be strangled in the night and then threw out his corpse into the garden, where it lay some days unburied. It is said her husband, on seeing her twisting a thick string of silk and silver, asked for what purpose she made it; she answered, "to hang you in!" which he then little believed; the rather, because those who intend such mischief use not to speak of it before-hand; but it seems she was as good as her word.

O fairest of creation! last and best
Of all God's works! creature in whom excelled
Whatever can to sight or thought be formed,
Holy, divine, good, amiable, or sweet!
How art thou lost.

MILTON.

LOVE is never more abused than by those men who do not design to marry. It will generally be found, that libertines will single out from among the herd of females, a raw, innocent, young creature, who thinks all the world as sincere as herself, to whom they design to make their addresses. They take every opportunity to be in their company, and pretend to zeal in love, when it is nothing but lust that fires them.

When men's desires and lusts once sated are,
For oaths and promises they little care.

The female, who yields her virtue to the brutal desires of a false lover, degrades herself in his estimation by the infidelity she commits, and the surrender of so precious a jewel inspires a remorse and shame, when she ceases to be beloved, that constitutes the bitterest woe of life.

It is surely matter of wonder, that these *destroyers* of innocence, though dead to all the higher sentiments of virtue and honour, are not restrained by compassion and humanity. To bring sorrow, confusion, and infamy into a family; to wound the heart of a tender parent, and stain the life of a poor deluded young woman, with a dishonour which never can be wiped off, are circumstances one would think sufficient to check the most violent passion, in a heart the least susceptible of feeling.

OF HOPE.

"Hope springs immortal in the human breast,
Man never is, but always to be blest.
O Happiness, our being's end and aim,
Good, Pleasure, Ease, Content, whate'er thy name:
That something still, which prompts the eternal sigh,
For which we bear to *live*, or dare to *die*." Pope.

Hope is the anticipation of joy, or [illegible] presentiment of an expected good. It is attended with all the favourable effects of a fortunate event, without possessing any of its physical advantages; because the expectation of happiness does not affect us so excessively as its enjoyment. Besides, it is not liable to those interruptions, from which no human pleasure is exempt; it is employed principally with ideal or imaginary objects, and generally keeps within the bounds of moderation; lastly, the sense of happiness contained in hope, far exceeds the satisfaction received from immediate enjoyment, consequently it has a more beneficial influence on health, than good fortune realized. Although hope is in itself only ideal, and presents its flattering images to the fancy in a borrowed light, yet it is nevertheless the only genuine source of human happiness.

With thee, sweet Hope! resides the heavenly light,
That pours remotest rapture on the sight:
Thine is the charm of life's bewilder'd way,
That calls each slumb'ring passion into play.
Wak'd by thy touch, I see the sister band,
On tiptoe watching, start at thy command,
And fly where'er thy mandate bids them steer,
To Pleasure's path, or Glory's bright career. Campbell.

The poet Hesiod tells us, that the miseries and calamities of mankind were included in a great tun; that Pandora took off the lid of it, sent them abroad, and they spread themselves in great quantities over all lands and seas; but at this time,

> Hope only did remain behind, and flew not all abroad,
> But underneath the utmost brim and ledge it still abode.

And this is that which is our principal antidote, which keeps our hearts from bursting under the pressure of evils; and that flattering mirror that gives us a prospect of greater good. Hence some call it the manna from Heaven, that comforts us in all extremities; others the pleasant and honest flatterer, that caresses the unhappy with expectation of happiness in the bosom of futurity.

A very notable case of the influence of Hope on the human body, and its maladies, is recorded in the history of the long siege of Breda, in 1625, by a physician, eye witness of the fact.

That City, from a long siege, suffered all the miseries that fatigue, bad provisions, and distress of mind could bring on its inhabitants. Among other misfortunes the *scurvy* made its appearance, and carried off great numbers. This, added to other calamities, induced the garrison to incline towards a surrender of the place, when the Prince of Orange, anxious to prevent its loss, and unable to relieve the garrison, contrived to introduce letters addressed to the men, promising them the most speedy assistance. These were accompanied with newly discovered medicines against the scurvy, of a most extraordinary price, but still more extraordinary efficacy. To each physician were given three small vials, filled with drops of such sovereign power, *that four drops were sufficient to impart a healing virtue to a gallon of liquor.* We now, says the physician, who was one of the eye-witnesses of this curious fact, began to display our wonder-working balsams. Nor were even the commanders let into the secret of the cheat upon the soldiers. All who had the scurvy crowded around us to take their doses. Cheerfulness again appears in every countenance, and the *universal faith* prevails in the sovereign virtues of the remedy. The effect of this delusion was truly astonishing. Many who had not moved their limbs for a month before, were seen walking the streets erect and perfectly cured. Many who declared they had been rendered worse by all former remedies, recovered in a few days, to their inexpressible joy, and the no less general surprise, by their taking, what we affirm to be, their *gracious Prince's cure.*

"This curious relation," adds Dr. Lind, "would hardly perhaps gain credit, were it not in every respect consonant to the most accurate observations, and best attested description of that disease. It is given us by an eye-witness, an author of great candour and veracity, who as he informs us, wrote down every day the state of his patients, and seems more to be surprised with their unexpected recovery, than he probably would have been, had he been acquainted with the nature of this surprising malady. An important lesson in physic," adds this excellent writer, "is hence to be learned; the wonderful influence of the passions of the mind on the state and disorders of the body. This is too often overlooked in the cure of disorders, many of which are sometimes attempted by the sole mechanical operation of drugs, without calling in to our assistance the strong powers of the imagination, or the concurring influences of the soul. Hence it is, that the same remedy will not always produce the same effect, even in the same person; and that common remedies often prove wonderfully successful in the hands of men not of the faculty, which do not answer the purpose in a timorous and distrustful patient."

Primeval Hope, the Aonian muses say,
When Man and Nature mourn'd their first decay;
When every form of death, and every wo,
Shot from malignant stars to earth below;
When Murder bared her arm, and rampant War
Yok'd the red dragons of her iron car;
When Peace and Mercy banish'd from the plain,
Sprung on the viewless winds to Heav'n again;
All, all forsook the friendless guilty mind,
But hope, the charmer, linger'd still behind. CAMPBELL.

A certain Rhodian, for his over freedom in speech, was cast by a tyrant into a cage, and there kept as a wild beast, to his great pain and shame: for his hands were cut off, his nostrils slit, and his face deformed by several wounds upon it. In this extremity, he was advised by some of his friends to shorten his life by a voluntary abstinence from all food. But he rejected their counsel with great indignation; and told them, "While a man is alive, all things are to be hoped for by him."

Cease, every joy, to glimmer on my mind,
But leave—oh! leave the light of Hope behind!
What though my winged hours of bliss have been,
Like angel-visits, few and far between!
Her musing mood shall every pang appease,
And charm when pleasures lose the power to please!

CAMPBELL.

But Hope ill-grounded does often trick and bubble the owner, as it did the Spanish woman that, coming with three of her sons a begging to a French shoemaker that lived in Spain, he said to her one day, "Good woman, I will ease thee of some part of thy charge; for if thou leave one of thy sons with me I will breed him up in my trade, and make him capable of living like a man, and to be helpful to his parents also." "God forbid," said the woman, "that I should cast away my child to a stranger, and bring him up to so pitiful a mechanic trade as a shoemaker, since I live in hopes that the eldest will be Viceroy of Naples, the second of Mexico, and the youngest of Sardinia.

Hope, Fortune's cheating lottery!
Where, for one prize, a hundred blanks there be.
Fond archer, Hope! who tak'st thy aim so far,
That still, or short or wide, thy arrows are.
Thin empty cloud! which th' eye deceives
With shapes that our own fancy gives:
A cloud, which gilt and painted, now appears,
But must drop presently in tears.
Brother of Fear! more gaily clad!
The merrier fool o' the two, but quite as mad. DRYDEN.

OF JOY.

Pleasures are ever in our hands or eyes;
And when, in act, they cease, in prospect, rise;
Present to grasp, and future still to find,
The whole employ of body and of mind.
All spread their charms, but charm not all alike;
On diff'rent senses, diff'rent objects strike;
Hence diff'rent Passions, more or less inflame,
As strong or weak, the organs of the frame;
And hence one MASTER PASSION in the breast,
Like Aaron's serpent, swallows up the rest. Pope.

The consideration of some present good, and which particularly belongs to us, begets in the soul that delight which we call joy; for as soon as our understanding observes that we are possessed of the good we desired, the imagination presently makes some impression in the brain, from whence proceeds a motion of the sensitive soul, and of the spirits, that excites the passion of joy. By it the activity of the whole machine is enlivened; the action of the heart and arteries is increased; the circulation of all the fluids is more vigorous and uniform; preventing the formation of disease, and facilitating the cure of such as are formed.

There are several degrees of joy, as various circumstances may intervene; and so may we distinguish various differences of the passion itself; for there is no pleasure or good that may not be mixed with some ill or inconvenience. Our extremest pleasure has still some air of groaning and complaining in it, unless it be discreetly moderated. It proves fatal to us when it grows into excess.

Ptolemeus Philadelphus had received the sacred volumes of the law of God, newly brought out of Judea; and while he held them with great reverence in his hands, praising God upon that account, all that were present made a joyful exclamation; and the king himself was so overjoyed, that he broke out into tears. Nature having so ordered it, that the expression of sorrow should also be the follower of extraordinary joys.

Askew, a wealthy and facetious farmer of Cornwall, was afflicted with a most alarming imposthumation, of which he appeared to be on the very point of suffocation. Concluding, from his agonies, that he had but a few moments to live, his servants, an ungrateful crew to such a generous master, began to plunder. One seized his gold watch, another laid violent hands on his plate, and the third, more daring still, broke his bureau, and began to finger his gold. A monkey, who was present, seeing what they were about, and thinking he might as well take a hand in the game, laid hold of his master's wig, and with his gold-headed cane, made him a low bow, and began to walk about the room as a man of great consequence. The stately steppings and self-assumed dignity of Jacko, so tickled the fancy of Mr. Askew, as to excite a most immoderate fit of laughter. The imposthumation burst, the purulent matter was thrown up—and, to the eternal confusion of his servants, Mr. Askew perfectly recovered his health.

Philemon, a comic poet, beholding an ass eating some figs that a boy had laid down; when the boy returned, "Go now," said he, "and fetch the ass some drink;" the old man was so tickled with the fancy of his own jest, that he died laughing. In the same manner, and much upon the same occasion, died Crysippus.

Diagoras, the Rhodian, when he saw his three sons all victorious in the Olympic games, and crowned the same day, he was extremely pleased; but when his sons came and embraced their aged father, and each put their triumphal wreath upon his head, he was so overcome with joy and delight, that he fell into their arms, and died.

If we have anticipated any joyful event, the body is gradually prepared to undergo the emotions connected with it. For this reason we ought to fortify ourselves with the necessary share of firmness, to meet joyful as well as disastrous tidings.

OF GRIEF.

It is the great art of life to manage well
The restless mind. For ever on pursuit
Of knowledge bent, it starves the grosser powers
Quite unemployed, against its own reposé
It turns its fatal edge, and sharper pangs
Than what the body knows, embitter life.
Chiefly were solitude, the nurse of care,
To sickly musing gives the pensive mind,
There madness enters; and the dim-eyed fiend,
Sour melancholy, night and day provokes
Her own eternal wound. * * * * *

ARMSTRONG.

GRIEF, like a poison, corrodes the powers of the mind and body; it enfeebles the whole nervous system; the heart beats slower; the circulation of the blood, and other fluids, become more inert; the appetite and digestion become vitiated, and thus arise obstructions and other distressing complaints. Tears are the anodynes of grief, and ought, therefore, not to be restrained. They have a tendency to prevent the danger to be apprehended from grief, by diminishing the spasmodic motions in the breast and head; and by restoring regularity in respiration, as well as in the circulation of the blood.

A widow lady was left in narrow circumstances with a boy and girl, two beautiful and lovely children, the one six, and the other seven years of age. As her circumstances allowed her to keep but one maid servant, these two children were the sole attention, employment, and consolation of her life. She fed them, dressed them, slept with them, and taught them herself. They were both snatched from her by the gangrenous sore throat, in one week; so that she lost at once all that employed her, as well as all that was dear to her. For the first three or four days after their death, when any friend visited her, she sat upright with her eyes wide open, without shedding tears, and affected to speak of indifferent things. Afterwards she began to weep much, and for some weeks talked to her friends of nothing else but her dear children; but did not for many years, even to her dying hour, get quite over a gloom which was left upon her countenance.

When any cause of deep grief is presented to the mind it frequently gains such a force as almost totally to exclude all thoughts, except those that are connected with it. Hence the whole imagination is, by degrees, obscured, and the most usual consequences of it are the deepest melancholy, succeeded by insanity—and sometimes, that speedier dissolution, "a broken heart."

When the Turks came to raise the siege of Buda, there was amongst the German captains a nobleman called Rayschachius, whose son, a valiant young gentleman, having got out of the army without his father's knowledge, he behaved so gallantly in fight against the enemy, in the sight of his father and of the army, that he was highly commended of all men, and especially of his father, who did not know he was his son; yet before he could clear himself he was compassed in by the enemy, and, valiantly fighting, was slain. Rayschachius, exceedingly moved by the death of a brave man, ignorant how near it touched himself, turning about to the other captains, said "This worthy gentleman, whosoever he be, deserves eternal commendation, and to be honourably buried by the whole army." As the rest of the captains were with like compassion approving his speech, the dead body of the unfortunate son was presented to the most miserable father, which caused all who were present to shed tears; but such a sudden and inward grief surprised the aged father, and struck so to his heart, that after he had stood awhile speechless, with his eyes fixed, he fell down dead.

The melioration of grief by time, and its being at length even attended by pleasure, depends on our retaining any distinct idea of the last object, and forgetting for a time the idea of the loss of it. This pleasure of grief is beautifully described by Akenside.

* * * Ask the faithful youth
Why the cold urn of her whom long he lov'd
So often fills his arms: so often draws
His lonely footsteps at the silent hour
To pay the mournful tribute of his tears?
Oh! he will tell thee, that the wealth of worlds
Should ne'er seduce his bosom to forego

That sacred hour; when stealing from the noise
Of care and envy, sweet remembrance sooths
With Virtue's kindest looks, his aching breast,
And turns his tears to rapture.

Whilst the great genius of physic, Hippocrates, drove away maladies by his precepts, and almost snatched bodies out of the hands of death, one Antiphon arose in Greece, who, envious of his glory, promised to do upon souls what the other did on bodies; and proposed the sublime invention, which Plutarch calls the *art of curing grief*, where we may truly say, he used more vanity, promises, and show of words than he wrought effects. Certainly it were to be wished that all ages which are abundant in misery should likewise produce great comforts to soften the calamities of human life.

O! canst thou minister to a mind diseased,
Pluck from the memory a rooted sorrow,
Rase out the written troubles of the brain;
And, with some sweet oblivious antidote,
Cleanse the stuff'd bosom of that perilous stuff
Which weighs upon the heart? SHAKSPEARE.

In the Pagan religion, the power of dying was the great consolation in irremediable distress. Seneca says, "No one need be unhappy, unless by his own fault."—And the author of Telemachus begins his work by saying, that Calypso could not console herself for the loss of Ulysses, and found herself unhappy in being immortal. But to the Christian this one suggestion, I know that my REDEEMER liveth affords a richer cordial to the fainting soul, than all the volumes of Heathen Philosophy.

Many are the sayings of the wise
In ancient and in modern books enroll'd,
Extolling *patience* as the truest fortitude.
And to the bearing well of all calamities,
All chances incident to man's frail life.
Many are the consolatary writs form'd
With studied argument and persuasion;
But with th' afflicted in his pangs such sounds

Little prevail, or rather seem a tune
Harsh, and of dissonant mood from his complaint:
Unless he feel within
Some source of *consolation from above*,
Secret refreshings, that repair his strength,
And fainting spirits uphold. **MILTON.**

In the midst of all distresses, there remains to every sincere *Christian*, that mixture of pure and genuine consolation, which springs from the promises and hopes of a future life. Consider what a singular distinction this makes in your situation, beyond the state of those who, under the various troubles of life, are left without hope; without any thing to look up to, but a train of unknown causes and accidents, in which they see no light or comfort. Thank the FATHER OF MERCIES, that into all the evil he sends, he infuses *joyful hope*, that *the sufferings of the present time are not worthy to be compared with the glory that shall be revealed in the end to the virtuous and good.* Have we sustained the greatest of all losses? It is his gain that he yet liveth, that this life is but the threshold, the portal, the entrance to a better place, and that his happiness is as complete as our misery is great. Let us turn our eyes from earth to heaven, from the perishable body to that which endureth forever; and even whilst we are heavy with affliction, let us smile with our eyes turned upwards, and say, "It is thy will, I submit. He is happy. I would not wish him back to a troublesome world. I soon shall follow after him. The mortal hath put on immortality—We shall then meet, never to be separated more."

Think, then, ye mourning parents, nor complain
For breathless children, as ye weep in vain.
Why should you be in lamentations drown'd,
While your young babes with victory are crown'd,
Before the sword was drawn, or cruel strife
Had shed its venom on the ills of life?
Perhaps Almighty God foresaw some vile,
Some tempting evil that should them beguile;
Of sore adversity, a dreadful storm,
Or of dire wickedness, a monstrous form.

How then in words which nothing can avail,
Against that kind precaution dare you rail?
Remember, that of them you're not bereav'd,
But from "the coming evil they are sav'd." ANKETELL.

OF FEAR.

TIMOROUS self-love, with sick'ning fancy's aid,
Presents the danger that you dread the most,
And ever galls you in your tender part.
Hence, some for love, and some for jealousy,
Have lost their reason: some for fear of want,
Want all their lives; and others every day,
For fear of dying suffer worse than death.
Is there an evil worse than fear itself?
And what avails that indulgent Heaven
From mortal eyes has wrapt the woes to come,
If we, ingenious to torment ourselves,
Grow pale at hideous fictions of our own? ARMSTRONG.

FEAR has its origin in the apprehension of danger, and is kindly placed in man as a sentinel for self-preservation. But, like every other passion the excess of it is pernicious.

O Fear, I know thee by my throbbing heart;
Thy withering power inspir'd each mournful line:
Though gentle Pity claim her mingled part,
Yet all the thunders of the scene are thine. COLLINS.

Don Diego Osorius, a Spaniard of a noble family, being in love with a young lady of the court, had prevailed with her for a private conference under the shady boughs of a tree, that grew within the gardens of the king of Spain: but, by the unfortunate barking of a little dog, their privacy was betrayed, and the young gentleman seized by some of the king's guard, was imprisoned. It was a capital crime to be found in that place, and, therefore he was condemned to die. He was so terrified at the hearing of his sentence, that one and the same night saw the same person young, and all turned grey as in age. The jailor, moved at the sight, related the accident to king Ferdinand, as a prodigy; who, thereupon, pardoned him; saying, "He had been sufficiently punished for his fault, seeing he had exchanged the flower of his youth into the hoary hairs of age."

I knew a surgeon, says Dr. Darwin, who was always rather of a parsimonious disposition, had a large house, with a fortune of forty thousand pounds left him; and in a few weeks became insane from the fear of poverty; lamenting that he would die in a jail or a work-house. He had left off a laborious country practice and the daily perception of profit in his books; he also now saw greater expenses going on in his new house than he had been accustomed to observe, and did not so distinctly see the source of supply; which seems to have occasioned the maniacal hallucination. The fear of hell, continues he, has also, in some instances, been attended with fatal effects. In this kind of madness, the poor patients frequently commit suicide; although they believe they run headlong into the very hell which they dread!

It is said of Epicurus, a profane teacher, that never was a school boy more afraid of a rod, than he was of the thoughts of a God and death. No man more feared the things which he taught should be despised, than himself. For whatever there is in the air, there is certainly an elastical power in the conscience, that will bear itself up, notwithstanding all the weight that is laid upon it.

Conscience, the torturer of the soul, unseen,
Does fiercely brandish a sharp scourge within.
Severe decrees may keep our tongues in awe,
But to our thoughts what edict can give law?
Even you, yourself, to your own breast shall tell
Your crimes, and your own conscience be your hell.

DRYDEN.

The wretched state of Richard the Third, after he had murdered his nephews, is thus described by Sir Thomas Moore: "I have heard," saith he, "by credible reports, that after this abominable deed he never had quiet in his mind, and never thought himself safe. When he went abroad his eyes whirled about, his body was privily fenced, his hand ever on his dagger, his countenance and manner like one who was ever ready to strike: he took no rest in the night, lay long waking and musing, sore wearied with care and watching, and rather slumbered than slept, troubled with fearful dreams: he sometimes started suddenly up, leaped out of his bed, and ran about the chamber: his restless heart was continually tossed and tumbled with the tedious impression and stormy remembrance of his horrid and abominable deeds."

Conscience, what art thou? thou mysterious pow'r,
That dost inhabit us without our leave,
And art within ourselves another self,
A master self, that loves to domineer,
And treat the monarch frankly as the slave;
How dost thou light a torch to distant deeds,
Make the past, present, and the future frown:
How, ever and anon, awake the soul,
As with a peal of thunder, to strange horrors!

SHAKSPEARE.

The rich Cardinal of Winchester, Henry Beaufort, who procured the death of the good Duke of Gloucester, was soon after struck with an incurable disease; and, understanding by his physicians, that he could not live, he expressed himself thus; "Fy, will not death be hired? Will money do nothing? Must I die who have such great riches? If the whole realm of England would save my life, I am able, either by policy to get it, or by riches to buy it." But the king of terrors is not to be bribed by gold. It is a pleasure to him to mix the brains of princes and politicians with common dust; and how loath soever he was to depart, yet grim death would sieze upon him.

How shocking must thy summons be, O death!
To him that is at ease in his possessions;
Who, counting on long years of pleasure here,
Is quite unfurnish'd for the world to come?
In that dread moment, how the frantic soul
Raves round the walls of her clay tenement,

Rushes to each avenue, and shrieks for help,
But shrieks in vain. * * * * * *
* * * * * * * * * * * The foe,
Like a staunch murderer, steady to his purpose,
Pursues him close through every lane of life,
Nor misses once the track, but presses on,
Till forc'd at last to the tremendous verge,
At once he sinks to everlasting ruin. **Blair.**

The best remedy against this torturing state of the mind is a good conscience, which is to the soul what health is to the body. It preserves a constant ease and serenity within us, and more than countervails all the calamities and afflictions that can befal us.

When the mind has been under the influence of sudden surprise, or vehement attention to some interesting object, it has frequently suspended, and even entirely cured, ague and fever, asthma, and other chronic diseases.

An officer, of great courage, who had contracted the asthma by long service in India, declares, that during a most severe attack of that complaint, when he could scarcely breathe in an erect posture, and without power to move, as he thought, six yards to save his life, the alarm guns were fired for the whole line to *turn out*, because the Mahrattas broke into the camp. Knowing that certain death would be his portion if he remained in his tent, *he sprung out with an alacrity that amazed his attendants, instantly mounted his horse, and with great ease drew his sword, which the day before he could not move from its scabbard, though he had used his whole strength in the attempt.* From the instant of the alarm, the *debility* left him, together with the *asthma*, nor did the disorder return for some time after.

I have frequently observed, says the ingenious author of the Medical Extracts, delicate hysterical women, who, for many months, had seldom enjoyed one day's health, suddenly relieved from every complaint, when a favourite child was attacked with a disease, in which danger was apprehended: and they continued in appearance, to be in perfect health during the whole course of the illness, and exhibited an unusual alertness in discharging their duty as nurses and parents. But when they understood that the danger was over, their former complaint gradually returned, to their great surprise; for from the health they had lately enjoyed, and from so considerable a time, they believed themselves perfectly cured.

A very remarkable instance of the influence the mind has upon disorders of the body, occurred to the celebrated Boerhaave. A person fell down in an epileptic fit in the sight of other patients. The effect of this operated so strongly that great numbers of them became immediately affected in the same manner. The opinion of the great physician above mentioned was requested on this occasion. He judiciously reflected, that, as these fits were originally produced by an impression on the mind, that the most proper means of cure would be to eradicate these impressions by others still more powerful. He therefore directed *actual cauteries* to be prepared, and kept hot, in readiness to be applied to the person who should next be affected. *The consequence was, not one person was seized.*

Through a most criminal inattention to children in the nursery, a foundation is sometimes laid in their tender minds for those superstitious terrors, from which not all their efforts in subsequent life can entirely relieve them. I allude to those dismal stories about *Witches*, *Spirits*, *Hobgoblins*, *Raw-head and bloody-bones*, wherewith silly nurses, especially poor blacks, are so fond of frightening infants. Considering the importance of deep impressions made during those tender years, parents cannot too strictly forbid every thing of this sort; neither can they ever exceed in their generous labours to illuminate the minds of their children with lofty ideas of their Creator, and that mighty power which he will never fail to exert in their favor, if they will but be *good.*

Timorous persons are more readily infected by contagious disorders, than those possessed of fortitude. Hence it is we find nurses most frequently escape contagion, while persons of a fearful disposition contract the disease on entering the chamber of the sick only once or twice.

Persons under a violent fit of fear, should be treated like those who suffer from any other spasmodic contraction. Tea, a little wine, or spirits and water may be given to them; vinegar, lavender-drops, or spirits of hartshorn may be held to the nostrils; warm bathing of the feet, and emollient injections may be of advantage; but above all, the mind ought to be duly composed.—*Excessive bashfulness* borders on fear; it may be corrected by social intercourse with persons of a cheerful disposition.

OF ANGER.

When *reason*, like a skilful charioteer,
Can break the fiery passions to the bit,
And, spite of their licentious sallies, keep
The radiant track of glory; passions, then,
Are *aids* and *ornaments*. * * * * * * YOUNG.

Resentment of wrong is a useful principle in human nature; and for the wisest purposes was implanted in our frame. It is the necessary guard of private rights; and the great restraint on the insolence of the violent, who, if no resistence were made, would trample on the gentle and peaceable. But in the fulness of self-estimation, we are too apt to forget what we are. We are rigorous to offences, as if we did not daily intreat Heaven for mercy. It is a vice that few persons are able to conceal; for if it do not betray itself by external signs, such as sudden paleness of the countenance, and trembling of the joints, it is more impetuous within.

Pale and trembling Anger rushes in,
With falt'ring speech, and eyes that wildly stare;
Fierce as the tiger, madder than the seas,
Desperate, and arm'd with more than human strength,
He whom Anger stings, drops, if he dies,
At once, and rushes apoplectic down;
Or a fierce fever hurries him to hell. ARMSTRONG.

Those who feel the approach of anger in their mind, should, as much as possible, divert their attention from the object of provocation, and remain silent. They should never use loud oaths, violent upbraidings, or strong expressions of countenance, or gesticulations of the arms, or clenched fists; as these, by their former associations with anger, will contribute to increase it. I have been told, says Dr. Darwin, of a sergeant or corporal, who began moderately to cane his soldiers, when they were awkward in their exercise; but being addicted to swearing and coarse language, he used soon to enrage himself by his own expressions of anger, till, toward the end, he was liable to beat the delinquents unmercifully. Is this not applicable to some of us, in the treatment of our slaves?

A gentleman in New-Castle county, Delaware, was so enraged with a neighbouring slave, for persevering, contrary to his orders, to visit a female servant in his family, that he bought him of his master at a high price, for the express purpose of *getting satisfaction;* that is, to give him a severe flogging, and then to sell him to a negro-buyer. What with the bitter curses and blows he inflicted upon the poor fellow, *tied hands and feet*, his anger rose at length to a flame he could not control, and, by the time the master had lost the power to inflict, the poor slave had lost the power to suffer—having literally expired under his cruel hands.

A sea captain, in Charleston, South Carolina, navigated his vessel with the help of three slaves. On some provocation from one of them, he laid hold of the offender, who was so alarmed at his master's looks, that he jerked away from him. Roused to fury by such an act of *treason*, as this appeared to him, the master caught up a broad axe, and with the looks and voice of a demon, ordered his other slaves "to seize the d——d villain." Frightened out of their wits, they seized their fellow-servant, and the master black with rage, and regardless of his prayers and supplications, had him dragged to a block, and in a most barbarous manner struck off his head.

Although the laws of the land did not sentence these inhuman masters to death, yet neither of them long survived their infernal acts. The gnawings of a blood-stained conscience soon brought them down to the grave.

Cruelty is the extreme of all vices, an offence to God, abhorrence to nature, the grief of good men, and a pleasure only to devils and monsters divested of humanity. Justice may take away a man's life, to punish his offences, and to deter others by his example, from the commission of the same crimes; but to do it by racks and other torments, favours little of humanity, less of christianity.

How many millions of men have the Spaniards butchered in South America? Bartholomew Casa affirms, that in forty-five years they destroyed about ten millions of human souls; an unaccountable way of converting these poor savages to Christianity. These millions were butchered outright, and if we add those who died labouring in the mines, doing the drudgery of asses, oxen, and mules, to what a vast number would they amount? Some of them carry burdens upon their backs of a hundred and sixty pounds weight, above three hundred miles. How many of these poor wretches have perished by water as well as by land, by diving fathoms deep, fishing for pearl, who stay there sometimes half an hour under water, panting and drawing the same breath all the while, and are fed on purpose with course biscuit and dry things, to make them long winded. And if what is reported be true, they hunt the poor Indians with dogs to make themselves sport. There is a story of Hathir Cacica, a stout Indian, who, being to die, was persuaded by a Franciscan friar to turn Christian, and then he should go to heaven; Cacica asked him "Whether there were any Spaniards in heaven?" "Yes," says the friar, "it is full of them." "Stay, then," said the Indian, "I had rather go to hell than have any more of their company."

A young gentleman in Augusta, Georgia, going to a party in the neighborhood, in a gig, had not got out of the street, before his horse balked. The youth, leaping from his gig, and angrily catching his horse by the bridle, led him off. Having mounted his gig, he cracked his whip for a second start; but his horse had not gone many steps, before he unfortunately fell back again.—Leaping from the gig in a violent rage, he struck his horse over the head with a loaded whip, and then attempted to lead him off once more. Frighted by such violence, the animal, in place of moving forward, drew back. Enraged by such obstinacy, the young man repeated his blows with the whip until it broke, which rather increased the perturbation of his mind. By this time, finding himself surrounded by unwelcome spectators of his brutal conduct, he became more furious; and snatching a large club, continued his unmerciful blows, until he brought the horse to the ground; when, after a few struggles, his blood and brains flowing copiously, the poor annimal expired.

As anger is a short madness, so patience is a recollection of all requisite virtues, that enables us to withstand the assaults of the former, and to behave ourselves like sober and prudent men.

When Xenocrates came one time to the house of Plato to visit him, he prayed him, "that he would beat his servant for him, in regard he himself was not at present so fit to do it, because he was in a passion." Another time he said to one of his servants, "that he would beat him sufficiently, but that he was angry."

Forgiveness of injuries, and a merciful disposition towards those who have offended us, are not only infallible marks of a great and noble mind, but are our indispensable duties as reasonable creatures, and peculiarly so as Christians.

Sir Walter Raleigh, a man of known courage and honour, being very injuriously treated by a hot-headed, rash youth, who next proceeded to challenge him, and, on his refusal to accept, spit upon him, and that too in public, the knight, taking out his handkerchief, with great calmness, made him only this reply: "Young man, if I could as easily wipe away your blood from my conscience, as I can this injury from my face, I would this moment take away your life." The consequence was, that the youth, struck with a sudden and strong sense of his misbehaviour, fell upon his knees, and begged forgiveness.

Clinias, the Pythagorean, was a person very different both in his life and manners from other men. If it chanced at any time that he was influenced with anger, he would take his harp, play upon and sing to it; saying, as oft as he was asked the cause of his so doing, "that by this means he found himself reduced to the temper of his former mildness."

There is a charm, a power that sways the breast,
Bids every passion revel or be still;
Inspires with rage, or all your cares dissolves;
Can soothe distraction, and almost despair.
That power is Music. * * * ARMSTRONG.

So great is the empire of music over all the faculties of human nature, and so loud have been the ingenious in celebrating its power and praises, that they have left nothing scarcely in heaven, not at all in the air, sea, or on the earth, but what, in excess of fancy or merit, they have subjected to its dominion for the better.

Music exalts each joy, allays each grief,
Expels diseases, softens every pain,
Subdues the rage of poison, and the plague;
And hence the wise of ancient days ador'd
One power of Physic—Melody and Song. ARMSTRONG.

While the physician prescribes draughts for curing bodily diseases, an able musician might prescribe an air for rooting out a vicious passion.

When the tyrant Eugenius raised that perilous war in the East, and money grew short with the emperor Theodosius, he determined to raise subsidies, and to gather from all parts more than before he had ever done. The citizens of Antioch bore this exaction with so ill a will, that, after they had uttered many outrageous words against the emperor, they pulled down his statues and those also of the empress his wife. A while afterwards, when the heat of their fury was past, they began to repent themselves of their folly, and considered into what danger they had cast themselves and their city. Then did they curse their rashness, confess their fault, implore the goodness of God, and with tears, "that it would please him to calm the emperor's heart." Their supplications and prayers were solemnly sung, with sorrowful tunes and lamenting voices. Their bishop, Flavianus, employed himself valiantly, in this needful time, in behalf of the city; made a journey to Theodosius, and did his utmost to appease him: but finding himself rejected, and knowing that the emperor was devising some grievous punishment; and on the other side, not having the boldness to speak again, and yet much troubled in his thoughts because of his people, then came this device into his head. At such time as the emperor sat at meat, certain young boys were wont to sing musically unto him. Flavianus wrought so, that he obtained of those that had charge of the boys, that they would suffer them to sing the supplications and prayer of the city of Antioch. Theodosius, listening to that grave music, was so moved with it, and so touched with compassion, that having then the cup in his hand, he with his warm tears watered the wine that was in it, and forgetting all his conceived displeasure against the Antiochans, freely pardoned them and their city.

"Man may most justly tuneful strains admire,
His soul is music, and his breast a lyre;
A lyre which, while its various notes agree,
Enjoys the sweet of its own harmony.
What ravishes the soul? What charms the ear?
'Tis music, though a various dress it wear.
Beauty is music too, though in disguise,
Too fine to touch the ear, it strikes the eyes,
And thro' 'em to the soul, the silent stroke conveys."

OF HATRED.

Infernal Malice, only pining Hate,
And Envy grieving at another's state;
When these are in the human bosom nurst,
Can peace reside in dwellings so accurst?
Hamilton.

Hatred is a *Fury* that never sleeps; ulcerates the soul; and tortures it throughout. Hence it never fails to injure the body.

As admiration, the first of the passions, rises in the soul before she has considered whether the thing represented to her be good, or convenient to her, or not; so, after she has judged it to be good, there is raised in her most agreeable and complacent of all passions, Love; and when she hath conceived the same to be evil, she is quickly moved to Hatred, which is nothing but the soul's aversion to that which threatens pain or grief, and may be defined to be "a commotion produced by the spirits, that incite the soul to be willing to be separated from objects represented to her as ungrateful and hurtful;" which definition only respects pure nature; but through the corruption of men and manners, it may be said to arise from an imbibed prejudice, or envy aggravated by continuance, and heightened by a malicious intention of malignancy, and injuring the persons to whom we have a disaffection, and that too without any reason but what proceeds from a self-contracted wickedness. Anger is sometimes, allowable, and when excessive, is still called but the vice of men; but hatred is said to be the sin of devils, being not confined at home, but roves abroad, seeking whom it may devour.

"Cruel revenge, which still we find,
The weakest frailty of a feeble mind.
Degenerous passion, and for man too base,
It seats its empire in the savage race."

A certain Italian, having his enemy in his power, told him there was no possible way for him to save his life, unless he would immediately deny and renounce his saviour. The timorous wretch, in hope of mercy, did it; when the other, forthwith, stabbed him to the heart, saying that now he had a full revenge, for he had killed at once both his body and soul.

In the reign of Edward VI. upon the alteration of religion, there was an insurrection in Cornwall and divers other counties, wherein many were taken and executed by martial law. The chief leaders were sent to London, and their executed. The sedition being thus suppressed, it is memorable what cruel revenge or sport Sir William Kingston, provost-martial, made by virtue of his office, upon men in misery. One Boyer, mayor of Bodmin in Cornwall, had been amongst the rebels, not willingly, but enforced. To him the provost sent word that he would come and dine with him, for whom the mayor made great provision. A little before dinner, the provost took the mayor aside, and whispered him in the ear, "That an execution must that day be done in the town, and therefore required that a gallows should be set up against dinner should be over." The mayor failed not of his charge. Presently after dinner, the provost, taking the mayor by the hand; desired him to lead him to the place were the gallows was; which, when he beheld, he asked the mayor, "If he thought it to be strong enough?" "Yes," said the mayor, "doubtless, it is." "Well, then," said the provost, "get you up speedily, for it is provided for you." "I hope," answered the mayor "you mean not as you speak!" "In faith," said the provost, "there is no remedy, for you have been a busy rebel:" and so, without respite or defence, he was hanged. Near the said place dwelt a miller, who had been a busy actor in that rebellion, who, fearing the approach of the marshal, told a sturdy fellow, his servant, that he had occasion to go from home, and, therefore, if any came to inquire for the miller, he should not speak of him, but say he was the miller, and had been so for three years before. So, the provost came, and called for the miller, when out comes the servant, and said, "he was the man." The provost demanded, how long he had kept the mill? "These three years," answered the servant. Then the provost commanded his men to lay hold of him, and hang him on the next tree. At this the fellow cried out, "that he was not the miller, but the miller's man." "Nay, Sir, said the provost, "I will take you at your word. If thou beest the miller thou art a busy knave; if thou art not, thou art a false lying knave; and, howsoever, thou canst never do thy master better service than to hang for him;" and so, without more ado, he was despatched.

Revenge is but a frailty, incident
To craz'd and sickly minds; the poor content
Of little souls, unable to surmount
An injury, two weak to bear affront. DRYDEN.

Revenge is a great sign of cowardice, when an enemy is at one's mercy. There is more bravery and disdain in slighting a private enemy, and despising revenge, than in cutting his throat: not that a man should be insensible of an injury or affront, but that he should not carry his resentments too far, where a gentle revenge is sufficient. Excellent was the advice that was given to the Romans by the ambassadors of some cities in Etruria. "That since they were men, they should not resent any thing beyond human nature; and that in mortal bodies they should not carry immortal feuds." Light injuries are made none by disregarding them; which, if revenged, grow grievous and burthensome, and live to hurt us, when they might die to secure us. It is princely to disdain a wrong; and they say, princes, when ambassadors have offered indecencies, used not to chide, but deny them audience; as if silence were the royal way to revenge a wrong.

When the Duke of Alva was in Brussels, about the beginning of the tumults in the Netherlands, he had sat down before Hulst, in Flanders; and there was a provost-marshal in his army who was a favourite of his, and this provost had put some to death by secret commission from the duke. There was one captain Bolea in the army, who was an intimate friend of the provost's; and one evening late he went to the captain's tent, and brought with him a confessor and an executioner, as it was his custom. He told the captain he was come to execute his excellency's commission and martial law upon him. The captain started up suddenly, his hair standing upright, and being struck with amazement, asked him, "Wherein have I offended the duke?" The provost answered, "Sir, I am not to expostulate the business with you, but to execute my commission; therefore, I pray prepare yourself, for there is your ghostly father and executioner." So he fell on his knees before the priest, and having done, and the hangman going to put the halter about his neck, the provost threw it away, and breaking into a laughter, told him, "there was no such thing, and that he had done this to try his courage, how he would bear the terror of death." The captain, looking ghastly at him, said, "Then, Sir, get you out of my tent, for you have done me a very ill office." The next morning, the said captain Bolea, though a young man of about thirty, had his hair all turned grey, to the admiration of all the world, and the duke of Alva himself, who questioned him about it; but he would confess nothing. The next year the duke was recalled, and in his journey to the court of Spain, he was to pass by Saragossa, and this captain Bolea and the provost went along with him as his domestics. The duke being to repose some days in Saragossa, the young old captain Bolea told him, "that there was a thing in that town worthy to be seen by his excellency, which was a casa de loco, a bedlam house, such a one as there was not the like in Christendom." "Well," said the duke, "go and tell the warden, I will be there to-morrow in the afternoon." The captain having obtained this, went to the warden, and told him the duke's intention; and that the chief occasion that moved him to it was, that he had an unruly provost about him, who was subject often times to fits of frenzy; and, because he wished him well, he had tried divers means to cure him, but all would not do; therefore, he would try whether keeping him close in bedlam for some days would do him any good. The next day the duke came with a great train of captains after him, amongst whom was the said provost, very shining and fine. Being entered into the house about the duke's person, captain Bolea told the warden, pointing at the provost, "that's the man:" the warden took him aside into a dark lobby, where he had placed some of his men, who muffled him in his cloak, seized upon his sword, and hurried him into a dungeon. The provost had lain there two nights and a day; and afterwards it happened that a gentleman, coming out of curiosity to see the house, peeped into a small grate where the provost was. The provost conjured him, as he was a Christian, to go and tell the duke of Alva his provost was there confined, nor could he imagine why. The gentleman did his errand; and the duke, being astonished, sent for the warden with his prisoner. The warden brought the provost in cuerpo, full of straws and feathers, madman-like, before the duke; who, at the sight of him, burst into laughter, asking the warden why he had made him prisoner? "Sir," said the warden, "it was by virtue of your excellency's commission, brought me by captain Bolea." Bolea stepped forth, and told the duke, "Sir, you have asked me oft how these hairs of mine grew so suddenly grey; I have not revealed it to any soul breathing; but now I'll tell your excellency;" and so related the passage in Flanders; and added—"I have been ever since beating my brains to know how to get an equal revenge of him, for making me old before my time." The duke was so well pleased with the story, and the wittiness of the revenge, that he made them both friends.

OF ENVY.

* * * * * * * * Malicious Envy rode
Upon a ravenous wolf, and still did chew
Between his canker'd teeth, a ven'mous toad,
That all the poison ran about his jaw:
But inwardly, he chewed his own maw
At neighbours' wealth, that made him ever sad:
For death it was when any good he saw,
And wept, that cause of weeping none he had,
But when he heard of harm, he wax'd wond'rous glad.

He hated all good works, and virtuous deeds,
And him no less that any like did use;
And who with gracious bread the hungry feeds,
His alms for want of faith, he doth accuse;
So every good to bad he doth abuse;
And eke the verse of famous poet's wit,
He does backbite, and spiteful poison spews
From lep'rous mouth on all that ever writ:
Such one, vile Envy was. SPENCER.

To repine at the superior happiness of others, is the nature of Envy. It arises from self-love or self interest, particularly in such individuals whom nature has denied certain qualifications of body or mind, which they cannot avoid seeing in others.

It is almost the only vice which is practicable at all times, and in every place; the only passion which can never lie quiet for want of irritation; its effects are, therefore, every way discoverable, and its attempts always to be dreaded.

Envy commands a secret band,
With sword and poison in her hand,
Around her haggard eye-balls roll,
A thousand fiends possess her soul.
The artful, unsuspected spright,
With fatal aim attacks by night.
Her troops advance with silent tread,
And stab the hero in his bed;
Or shoot the wing'd *malignant lie*,
And female honours pine or die. COTTON.

Solomon emphatically styles "Envy, a rottenness of the bones," and we too often witness its baneful effects on those who cherish the fatal poison. It shows itself in horrors even on the face of *young* females, who, it might be supposed, could not possess so odious a passion. Observe an envious girl, while pleased with herself, appears quite beautiful and pleasing in her manners; but on the appearance of one of her sex, *a school-mate*, of superior beauty and endowments, her countenance becomes strangely altered. In like manner the spirits become depressed; and, as the body cannot remain undisturbed, when the mind, to which it is so nearly attached, is in such misery, the person who is tormented with it cannot enjoy good health. For it is the passion of the damned; and, as it richly deserves punishment, it never escapes it.

A French lady of quality that was well married, and lived in plenty, hearing her husband's brother had married a very handsome lady with a great fortune, was mightily out of humour, insomuch that she perfectly hated all that spoke in the commendation of her new sister-in-law, and hearing her husband also commend her as a very beautiful woman, she bribed a servant in that lady's family to poison her; but he, discovering the design, and the lady being reproached for it by the husband, she poisoned herself and died.

Envy's the worst of fiends, procurer of sad events,
And only good when she herself torments. COWLEY.

Plutarch compares envious persons to cupping-glasses, which ever draw the worst humours of the body to them. Like flies, they resort only to the raw and corrupt parts of the body; or, if they light on a sound part, never leave blowing upon it till they have disposed it to putrefaction. When Momus could find no fault with the face in the picture of Venus, he picked a quarrel with her slippers; and so malevolent persons, when they cannot blame the substance, will yet represent the circumstance of men's best actions with prejudice. The black shadow is still observed to wait upon those that have been the most illustrious for virtue, or remarkable for some kind of perfection: and to excel in either has been an unpardonable crime.

"The man who envies, must behold with pain
Another's joys, and sicken at his gain."

When Aristides, so remarkable for his inviolable attachment to justice, was tried by the people at Athens, and condemned to banishment; a peasant, unacquainted with the person of Aristides, applied to him to vote against Aristides. "Has he done you any wrong," said Aristides, "that you are for punishing him in this manner?" "No," replied the countryman, "I don't even know him; but I am tired and angry with hearing every one call him *the just*."

Mutius, a citizen of Rome, was noted to be of such an envious and malevolent disposition, that Publius, one day observing him to be very sad, said, "Either some great evil has happened to Mutius, or some great good to another."

Medicines cannot cure a disease so odious. Education and improvement of morals are its only antidotes. Envious persons commonly give too much importance to trifles; hence they ought to be instructed to employ themselves in more useful pursuits; to judge of things according to their true value, and to accustom themselves to a philosophic calmness, learning how to overcome, or at least to moderate their selfishness; to counterbalance their expectations with their deserts; and to equal or surpass others in their merits, rather than in their pretensions.

OF AVARICE.

And, oh! what man's condition can be worse
Than his, whom plenty starves and blessings curse?
The beggars but a common fate deplore,
The rich poor man 's emphatically poor.

If cares and troubles, envy, grief, and fear,
The bitter fruits be what fair riches bear,
If a new poverty grows out of store,
The old plain way, ye gods! *let me be poor.* COWLEY.

THIS vile passion, which frowns at the approach of the stranger, clinches the hand against the poor, denies all encouragement of public good, and can pinch and starve wife and children, is hardly more detestable in a moral point of view, than it is pernicious in a physical. It is true, that by his unwillingness to part with his money, the miser is generally a temperate, and even an abstemious character, and so far his vice is beneficial to his health; but, in many other respects, this detestable vice operates very hurtfully to the health of him who is cursed with it. By the extreme eagerness to make money, by the distressing fears about keeping it, by the inconsolable grief for losing it; besides the heart-achs, the envies and jealousies, the sleepless nights, wearisome days, and numberless other ills which it inflicts on its slaves, it often ruins their health, and brings them down to the grave by some lingering disease, or more horrible suicide. History tells us of illustrious villians; but there never was an illustrious miser in nature.

Can wealth give happiness? Look round, and see
What gay distress! what splendid misery!
Whatever Fortune lavishly can pour,
The mind annihilates, and calls for more. YOUNG.

To declaim against riches, is like a hungry man inveighing against wholesome food, and a naked man railing at warm clothing; it is spending breath to no purpose, and one should sooner be stigmatised with the character of a fool or madman, than gain belief that the harangue is more than a copy of one's countenance, or like the fox cursing the grapes that were out of his reach; for there are so many good uses to which riches may be employed, that to inveigh against them is to saturize upon acts of piety, beneficence and charity. But to be poor in the midst of riches is the most insupportable kind of poverty.

In vain our fields and flocks increase our store,
If our abundance makes us wish for more. ROSE.

A rich cotton planter in Georgia, in consequence of losing two cents in the pound on a crop of cotton, was seized with such a sadness of heart, that he took to his bed, and refusing to be shaved, shirted, or to take suitable nourishment, died miserable. He was a bachelor, and his estate, on appraisement, amounted to nearly one hundred thousand dollars!

In York county, Pennsylvania, a farmer so wealthy as to raise one hundred bushels of clover seed on his own lands, in consequence of losing five dollars per bushel on his clover seed, that is, only getting seven dollars in Baltimore, after he had been offered twelve for it at home, was struck with such a deadly heart anguish, that he went into a fit of despondence, and hung himself. After his death, silver to the amount of two hundred thousand dollars was found barrelled up in his cellar.

Vain man! 'tis Heaven's prerogative
To take, what it first design'd to give,
Thy tributary breath:
In awful expectation plac'd,
Await thy doom, nor impious haste
To pluck from God's right hand his instruments of death.
WARTON.

Hippocrates, in his epistle to Crateva, the herbalist, gives him this advice for the cure of some rich patients, that if it were possible he should cut up that weed of *Covetousness* by the roots, that there might be no remainder left, then he might be certain, that, together with their bodies, he might cure all the diseases of their minds.

The same great and learned philosopher wished a consultation of all the physicians in the world, that they might advise together upon the means how to cure covetousness. It is now above two thousand years ago since he had his desire; and after him a thousand and a thousand philosophers have employed their endeavours to cure this insatiable dropsy. All of them have lost their labours. The evil rather increases than declines under the multitude of remedies. There have been a number, in former ages, sick of it; and this wide hospital of the world is as full of such patients as ever it was.

OF INTEMPERANCE.

We curse not wine—the *vile excess* we blame;
More fruitful than the accumulated board,
Of pain and misery. For the subtle draught
Faster and surer swells the vital tide;
And with more active poison than the floods
Of grosser crudity convey, pervades
The far remote meanders of our frame.
* * * * * * * For know whate'er
Beyond its natural fervour hurries on
The sanguine tide; whether the frequent bowl,
High seasoned fare, or exercise to toil
Protracted, spurs to its last stage tir'd life,
And sows the temples with untimely snow. ARMSTRONG.

TEMPERANCE, by fortifying the mind and body, leads to happiness. Intemperance, by enervating them, ends in misery.—And those who destroy a healthy constitution of body by intemperance, do as manifestly kill themselves, as those who *hang*, *poison*, or *drown* themselves. Virtue is no enemy to pleasure; but, on the contrary, is its most certain friend. Her office is to regulate our desires, that we may enjoy every pleasure with moderation; and then our relish for them will continue.

Pleasure, my friend, on this side folly lies;
It may be vig'rous, but it must be wise:
And when our organs once that end attain,
Each step beyond it is a step to pain. CAWTHORN.

Anacharsis, the Scythian, in order to deter young men from that voluptuousness ever attended with ill effects, applied his discourse to them in a parable, telling them that the vine of youthful gratification had three branches, producing three clusters. "On the first," says he, "grows pleasure; on the second, sottishness; on the third, sadness."

Struck by the powerful charm the gloom dissolves
In empty air: Elysium opens round.
A *pleasing frenzy* buoys the lightened soul,
And *sanguine hopes* dispel your fleeting cares;
And what are difficult, and what was dire,

Yields to your *prowess* and *superior stars;*
The happiest you of all that e'er were mad,
Or are, or shall be, could this folly last.
But *soon your heaven is gone*; a *heavier gloom*
Shuts o'er your head; and, as the thund'ring stream
Swoln o'er its banks with sudden mountain rain,
Sinks from its tumult to a silent brook;
So, when the *frantic raptures* in your breast
Subside, you languish into mortal man:
You sleep,—and waking, find yourself *undone*,
For, *prodigal of life, in one rash night*
You lavish'd more than might support three days.
A heavy morning comes; your cares return
With tenfold rage. ARMSTRONG.

Drinking is undoubtedly the most miserable refuge from misfortune. It is the most broken of all reeds. This solace is truly short-lived; when over, the spirits commonly sinking as much *below* their usual tone, as they had been before raised *above* it.—Hence a repetition of the dose becomes necessary, and every fresh dose makes way for another, till the miserable man is rendered a slave to the bottle; and at length falls a sacrifice to what at first, perhaps, was taken only as a medicine.

Unhappy man, whom *sorrow* thus and *rage*,
Two different ills, alternately engage.
Who drinks, alas! *but to forget;* nor sees
That melancholy, sloth, severe disease,
Memory confused, and interrupted thought,
Death's harbingers, lie latent in the draught,
And in the flowers that wreathe the sparkling bowl,
Fell adders hiss, and poisonous serpants roll. PRIOR.

Were the pleasures of the palate lasting, says Cornaro, *there would be some excuse for inebriety; but it is so transitory, that there is scarce any distinguishing between the beginning and the ending; whereas, the diseases it produces are very durable.*

O'er the dread feast malignant Chemia scowls,
And mingles poison in the nectar'd bowls;
Fell gout peeps grinning through the flimsy scene,
And bloated dropsy pants behind unseen:

Wrapp'd in his robe, white Lepra hides his stains,
And silent Frenzy, writhing, bites his chains. DARWIN.

The story of Prometheus seems to have been invented by physicians in those ancient times when all things were clothed in hieroglyphic, or in fable. Promotheus was painted stealing *fire* from heaven, which might well represent the inflammable spirit produced by fermentation, that may be said to animate and enliven the *man* of *clay:* whence the conquest of Bacchus, and the heedless mirth and noise of his devotees. *But the after punishment of those who steal this accursed fire, is a vulture gnawing the liver;* which well allegorises the poor inebriate, labouring under painful hepatic diseases. It is thus beautifully described by Darwin.

So when *Prometheus* braved the Thunderer's ire,
Stole from his blazing throne ethereal fire,
And lantern'd in his breast, from realms of day,
Bore the bright treasure to his man of clay:—
High on cold Caucasus, by *Vulcan* bound,
The lean, impatient vulture flutt'ring round;
His writhing limbs in vain he twists and strains,
To break or loose the adamantine chains:
The gluttonous bird, exulting in his pangs,
Tears his swoln liver with remorseless fangs.

Let those who have been enticed frequently to taste spirituous liquors, till at length they begin to have a fondness for them, reflect a moment on the danger of their situation; and resolve to make a speedy and honorable retreat. Remember that custom soon changes into habit; that habit is a second nature, more stubborn than the first; and, of all things, most difficult to be subdued. Remember, that it is by little unsuspecting beginnings, that this unfortunate vice is generally contracted; and, when once oonfirmed, scarcely terminates but with life! Learn, then, in time, to resist this bewitching spirit, whenever its tempts you.

Then will you find yourself so perfectly easy without it, as at length never to regret its absence; nay, peculiarly happy in having escaped the allurements of such a dangerous and insidious enemy.

Those who pride themselves on living fast, and are bent upon "a short and merry life," though in truth it is a short and *miserable* one, will, doubtless, spurn at these admonitions, and run headlong to their own destruction. Strange infatuation! Can you submit to such despicable bondage, and tamely give up your freedom without one generous struggle? The present conflict, remember, is not for the fading laurel or tinselled wreath, for which others so earnestly contend, but for those more blooming, more substantial honors, which *Health*, the daughter of *Temperance*, only can bestow. For it is thine, O *Health!* and thine alone, to diffuse through the human breast that genial warmth, that serene sunshine, which glows in the cheek, shines in the eye, and animates the whole frame! But, if still you have no regard for this blessing, let me remind you of an *hereafter!*

> "To die—to sleep—to sleep! perchance to dream—
> Ay, *there's the rub!*"

> If death was nothing, and *nought* after death;
> If, when men died, at once, they ceas'd to be,
> Returning to the barren womb of Nothing,
> Whence they sprung—then might the wretch
> That's weary of the world, and tired of life,
> At once give each inquietude the slip,
> By stealing out of being when he pleased,
> And by what way; whether by *hemp* or *steel*,
> Death's thousand doors are open. Who could force
> The ill-pleased guest to sit out his full time,
> Or blame him if he goes? Sure, he does well
> That helps himself as timely as he can,
> When able. But if there's an *hereafter*,
> And that there is, *Conscience* uninfluinced,
> And suffer'd to speak out, tells every man;
> Then must it be *an awful thing to die:*
> *More horrid yet to die by one's own hand.*
> *Self-Murder!* dreadful deed! our island's shame,
> That makes her the reproach of neighb'ring states:
> Shall *Nature*, swerving from her earliest dictates,
> *Self-preservation*, fall by her own act?
> Forbid it Heaven! Let not, upon disgust,

The *shameless hand* be foully crimson'd o'er
With blood of *its own lord.* Dreadful attempt!
Just reeking from self-slaughter, *in a rage*,
To rush into the presence of our JUDGE;
As if we challenged him to do his worst,
And heeded not his wrath. BLAIR.

It is an invariable law of our present condition, that every *pleasure*, which is pursued to *excess*, converts itself to a *poison.* Could we expose to view the monuments of death, they would read a lecture on moderation much more powerful than any that the most eloquent writers can give. You would behold the graves, peopled with the victims of intemperance. You would behold those chambers of darkness, hung round, on every side, with the trophies of luxury, drunkenness, and sensuality. So numerous would you find those victims to iniquity, that it may be safely asserted, where war or pestilence have slain their thousands, intemperate pleasure has slain its ten thousands.

By unhappy excesses, how many amiable dispositions have been corrupted or destroyed! how many rising capacities and powers have been suppressed! how many flattering hopes of parents and friends have been totally distinguished! Who, but must drop a tear over human nature, when he beholds that morning, which arose so bright, overcast with such untimely darkness; that good humour, which once captivated all hearts; that vivacity, which sparkled in every company; those abilities which were fitted for adorning the highest station, all sacrificed at the shrine of low sensuality; and one who was formed for running the fair career of life in the midst of public esteem, cut off by his vices at the beginning of his course; or sunk for the whole of it, into insignificancy and contempt.

Would you extend your narrow span,
And make the most of life you can;
Would you, when med'cines cannot save,
Descend with ease into the grave;
Calmly retire like evening light,
And cheerful bid the world good night?
Let temperance constantly preside
Our best physician, friend, and guide!

The Father justly describes the nature of this beastly vice, when he saith of it, that "It is a flattering devil; a sweet poison; a delightful sin; which he that hath, possesseth not himself; and he that acts it, doth not only commit a sin, but is wholly converted into sin, being deserted of his reason, which is at once his counsellor and guardian."

A young gentleman of the most respectable parentage, being rather intemperate, was urged by his parents to marry, thinking that might produce a change of his habits. He paid his addresses to a most amiable young lady, of a fair estate, to whom he was soon united in wedlock.—It was not many months after marriage, before he resumed his former habits, and what with drinking and gambling, he very soon exhausted the whole of her fortune. Executions being out against him; he was compelled to keep at home, where he did nothing but get drunk and abuse his amiable wife. One night, filled with rage, he resolved to destroy her, and going at a late hour into the kitchen, where she had been constrained to retire from his abuse, he continued his opprobrious language to her, and notwithstanding she gave him only loving and kind words, yet he struck her over the head with a large stick, which she bore patiently, although it much injured her face. He still continuing to rage at her, wearied, and in great fear, she rose up and went to the door. Here he followed her with a chopping-knife in his hand, with which he struck at her wrist, and cut her very much; no help being near but an old woman, who durst not interpose, fearing for her own life, who prayed her mistress to stay and be quiet, hoping all would be well, and so getting a napkin, bound up her hand with it. After this, still railing and raging at his wife, he struck her on the forehead with an iron cleaver, whereupon she fell down bleeding; but recovering herself, upon her knees she prayed unto God for the pardon of her own and her husband's sins, praying God to forgive him as she did. But as she was thus praying, the infernal dæmon, her husband, split her skull open with the cleaver, so that she died immediately: for which he was apprehended, condemned, and hanged. But so callous was the wretch, that even under the gallows he did not exhibit any marks of repentance.

It is a lamentable fact, so great is the infatuation of this vice, that few, once deluded, have ever recovered their freedom. Some glorious instances, however, have occurred, which is surely fine encouragement to others. We also have the pleasure to find none are greater enemies to vice, than those who formerly were the slaves of it, and have been so fortunate as to break their chain and recover their liberty.

A medical gentleman in Virginia, who was married to a most amiable lady, by associating with dissipated characters, became at length intemperate himself. As soon as he acquired habits of intemperance, his disposition was altered, and from an affectionate husband he proved very turbulent, and treated his wife so ill that she was constrained to separate from him. After living a disorderly life for some time, he was brought to a sense of reflection, and with an entire change of mind and manners, he renounced all vicious habits, plead *guilty* before his amiable wife, who was ready to forgive, and they have since lived in the utmost harmony. So sensible is he of the danger of using spiritous and vinous liquors to excess, that he will not taste them, lest he should be enticed to exceed the bounds of moderation; and whenever he sees a person so inclined, never fails to caution him against so *insidious* an enemy.

A gentleman of Maryland, addicted to drunkenness, hearing a considerable uproar in his kitchen one night, felt the curiosity to step without noise to the door, to know what was the matter; when, behold, they were all indulging in the most unbounded roars of laughter, at a couple of his negro boys, who were mimicking *himself* in his drunken fits!—as, how he reeled and staggered! how he looked and nodded, and hickupped and tumbled! The *pictures* which these children of nature drew of him, and which had filled the rest with such inexhaustible merriment, struck him with so salutary a disgust, that from that night he became perfectly a sober man, to the inexpressible joy of his wife and children.

A very respectable gentleman in Philadelphia, had a wife who, by her fondness for strong drink, had almost broken his heart. At length he was advised, "as a desperate remedy in a desperate disease," to place a barrel of spirits in her closet, and let her kill herself as soon as possible, since every persuasive means had been used in vain to break her of this beastly vice. At the sight of so extraordinary a visitant in her closet, she was struck with such horror at the idea of the dreadful design on which it was placed there, that she was immediately reclaimed, and recovered all the purity and lustre of her former character, to the infinite joy of her husband, children and numerous friends.

O *Temperance!* support and attendant of other virtues! Preserver and restorer of health! Maintainer of the dignity and liberty of rational beings, from the wretched, inhuman slavery of Sensuality, Taste, Custom and Example! Brightener of the understanding and memory! Sweetener of life and all it comforts! Companion of reason, and guardian of the passions! Bountiful rewarder of thy admirers and followers! how do thine excellencies extort the unwilling commendation of thine enemies! and with what rapturous delight can thy friends raise up a panegyric in thy praise!

OF GAMING.

THE love of gaming is the worst of ills;
With ceaseless storms the blacken'd soul it fills;
Inveighs at Heaven, neglects the ties of blood;
Destroys the power and will of doing good;
Kills health, pawns honour, plunges in disgrace,
And, what is still more dreadful—spoils her face. YOUNG.

WHILE gaming keeps within the bounds of innocent diversion, to recreate the body, or compose the mind, and is not tainted with covetousness or passion, the most strait-laced casuist will not censure or condemn it as a crime; but, when it breaks the limits of moderation, and transports men into heats, swearing, cursing, reproaching, and lying; or is taken up as a trade to live by, and pushed on by a covetous desire to enrich ourselves by the loss and ruin of one's neighbour, it is absolutely unlawful, carefully to be avoided, and utterly abominated, as the certain procurer of repentance, sorrow, grief, disease, derision, beggary, and contempt. To play sometimes to entertain company, says the Marquis of Halifax, or to divert yourself, is not to be disallowed; but, to do it so often as to be called a gamester, is to be avoided, next to the things that are most criminal. It has consequences of several kinds not to be endured; it will engage you into a habit of idleness and ill hours, draw you into bad company, make you neglect your business, bring you to poverty and disgrace, cause sleepless nights, and destroy health.

What fool would trouble Fortune more,
When she has been too kind before;
Or tempt her to take back again
What she had thrown away in vain,
By idly venturing her good graces
To be dispos'd of by umes-aces;
Or settling it in trust, to uses
Out of his power, on trays and deuces;
To put it to the chance, and try,
I' th' ballot of a box and die,
Whether his money be his own,
And lose it if he be o'erthrown;
As if he were betray'd, and set
By his own stars to every cheat,
Or wretchedly condemned by Fate
To throw dice for his own estate. BUTLER.

It is true, as it is lamentable, in the age we live, there are too many of all qualities and conditions excessively addicted to this abominable vice; by which many respectable families have been reduced from affluence to extreme poverty. But the evil does not stop here; it must be fresh in every memory, of the most diabolical acts having been perpetrated by persons who enlisted under the banners of a gambler, and squandered away their estate. Let the following melancholy catastrophe, which I have from the best authority not long since took place, prove a warning to others.

Mr. A. S——, who had a very comfortable support was enticed to associate himself with gamblers, and in a short time lost all that he possessed, at cards and dice, which ought to have been treasured up for the subsistence of his family. Reflecting on the foolish manner in which he had thrown away his money, and beholding his children cry about him for victuals, so diseased his mind that taking advantage of his wife's absence, he cut the throats of his three children, and then hung himself. His wife, on returning home, being so much affrighted at the sight of so barbarous a tragedy, fell dead upon the spot.

An old ruined gamester in hopes to make a bubble or prey of a young gentleman that came to town with his pockets full of money, took him to a gaming house, and there, to encourage him to play, showed him several topping sparks that were born to no fortune, who by play had purchased great estates, and lived in pomp and splendour, by success in shaking their elbows.—"You show me," says the young gentleman, "the winners, but I pray what has become of the losers?" To which the old prig making no reply, a third person, overhearing their conversation, told the young gentleman, that since the other was silent and confounded with shame at the question, he would oblige him with an answer—"Many of the losers," saith he, "taking the highway to repair their loses, have been hanged; others have gone to sea to earn their bread; some have taken up the trade of being bullies to bawdy-houses; others that have not hid themselves as servants under a livery, are begging or mumping about the streets, or starving in jails for debt, where you will be ere long, if you follow that rascal's counsel." "The punishment," says the young gentleman, is fit for the sin, when men, possessed with great sums of their own money, will play the fool to make it another man's; and, if this be the humour of the town, I will return again to the country, and spend my estate among my neighbours and tenants, where, you Sir," speaking to the gentleman that dealt so plainly with him, "shall be very welcome."

OF VANITY.

So weak are human kind by Nature made
Or to such weakness by their vice betray'd;
Almighty VANITY! to thee they owe
Their zest of pleasure, and their balm of woe. YOUNG.

VANITY consists of an agreeable reverie; and is well ridiculed in the story of Narcissus, who so long contemplated his own beautiful image in the water, that he died from neglect of taking sustenance.

On the green margin sits the youth, and laves
His floating train of tresses in the waves;
Sees his fair features paint the streams that pass,
And bends for ever o'er the watery glass.
DARWIN.

As the vain found their claims on qualities which they do not possess, they frequently meet with mortifications; while their extreme solicitude for distinctions they are not entitled to, can never allow them any repose; hence vanity is an enemy to health.

Observe a lady at a ball, anxious to be thought the finest woman in the assembly, and doubtful of success. The pleasure, which it is the purpose of the assembly to enjoy, is lost to her. She does not for a moment experience such a sensation; for it is totally absorbed by the prevailing sentiment, and the pains she takes to conceal it. She watches the looks, the most trivial marks of the opinion of the company, with the attention of a moralist, and the anxiety of a politician; and wishing to conceal from every eye the torment she feels, her affectation of gaiety at the triumph of a rival; the turbulence of her conversation when that rival is applauded; the over acted regard which she expresses for her; and the unnecessary efforts which she makes, betray her sufferings and constraint. Grace, that supreme charm of beauty, never displays itself but when the mind is perfectly at ease, and when confidence prevails.

If we take the whole sex together, we shall find those who have the strongest possession of men's hearts, are not always eminent for their beauty. As pride destroys all symmetry and grace, so affectation is a more terrible enemy to fine faces than the small pox. And it will always be found, that the lady who has an humble opinion of herself, will have every body's applause, because she does not expect it; while the vain creature loses approbation through too great a sense of deserving it by her own affectation.

If a beautiful, proud, and gay woman, would but seriously reflect on what a loathsome carcas she must ere long become in the grave, amidst worms and corruption, it would tend to mortify her pride, lessen her vanity, and teach her to be humble.

> Ye proud, ambitious, wealthy, young, and gay,
> Who drink the spirit of the golden day,
> And triumph in existence, come with me,
> And in the mould'ring corpse your picture see,
> What you, and all, must soon or later be.
>
> SOLITARY WALKS.

Pride, well placed and rightly defined, is of ambiguous signification, says the late incomparable Marquis of Halifax: one kind being as much a virtue as the other a vice. But we are naturally so apt to choose the worst, that it has become dangerous to commend the best side of it. Pride is a *sly, insensible enemy*, that wounds the soul unseen, and many, who have resisted other formidable vices, have been ruined by this subtle invader; for, though we smile to ourselves, at least ironically, when flatterers bedaub us with false encomiums; though we seem many times angry, and blush at our praises; yet our souls inwardly rejoice; we are pleased with it, and forget ourselves. Some are proud of their quality, and despise all below it; first, set it up for the idol of a vain imagination, and then their reason must fall down and worship it. They would have the world think, that no amends can be made for the want of a great title. They imagine, that with this advantage, they stand upon the higher ground which makes them look down upon merit and virtue as things inferior to them. Some, and most commonly women, are proud of their fine clothes; and when they have less wit and sense than the rest of their neighbours, comfort themselves with the reflection that they have more lace. Some ladies put so much weight upon ornaments, that if one could see into their hearts, it would be found that even the thought of death was made less heavy to them, by the contemplation of their being laid out in state, and honourably attended to the grave. The man of letters is proud of the esteem the world gives him for his knowledge; but he might easily cure himself of that disease, by considering how much learning he wants. The military man is proud of some great action performed by him, when possibly it was more owing to fortune than his own valour or conduct: and some are proud of their ignorance, and have as much reason to be so as any of the rest; for they being also compared with others in the same character and condition, will find their defects exceed their acquisitions.

O, sons of earth! attempt ye still to rise,
By mountains pil'd on mountains to the skies?
Heaven still with laughter the vain toil surveys,
And buries madmen in the heaps they raise. POPE.

A person of infinite wit, speaking of what might precisely be called a proud and vain man, once said, "*When I see him, I feel something like the pleasure of seeing a happy couple; his self-love and he live so happily together.*"

Pride was not made for men: a conscious sense
Of guilt, and folly, and their consequence,
Destroys the claim, and to beholders tells,
Here nothing but the shape of Manhood dwells.

I once saw, says Dr. Darwin, a handsome young man, who had been so much flattered by his parents, that his vanity rose so near to insanity, that one might discern, by his perpetual attention to himself, and the difficulty with which he arranged his conversation, that the idea of himself intruded itself at every comma, or pause of his discourse.

I dreamt that, buried with my fellow clay,
Close by a common beggar's side I lay;
And as so mean an object shock'd my pride,
Thus like a corpse of consequence I cried:

"Scoundrel, begone! and henceforth touch me not,
More manners learn, and at a distance rot."
"Scoundrel, then," with haughtier tone, cried he,
"Proud lump of earth, I scorn thy words and thee;
Here all are equal, now thy case is mine,
This is my rotting place, and that is thine." DODD.

The cure of vanity may be attempted by excess of flattery, which will at length appear ridiculous, or, by its familiarity, will cease to be desired. I remember, says Dr. Darwin, to have heard a story of a nobleman, in the court of France, who was so disagreeably vain in conversation, that the king was pleased to direct his cure, which was thus performed. Two gentlemen were directed always to attend him; one was to stand behind his chair, and the other at a respectful distance before him: whenever his lordship began to speak, one of them always pronounced, "Lord Gallimaufre is going to say the best thing in the world." And, as soon as his lordship had done speaking, the other attendant pronounced, "Lord Gallimaufre has spoken the best thing in the world." Till, in a few weeks, this noble lord was so disgusted with praise, that he ceased to be vain, and his majesty dismissed his keepers.

OF MODESTY.

HAIL, Modesty! fair female honour hail!
Beauty's *chief ornament*, without whose charms,
Beauty disgusts, or gives but vulgar joys.
Thou *giv'st the smile its grace; the heightened kiss*
Its balmy essence sweet! ARMSTRONG.

MODESTY is to virtue, what a fine veil is to beauty. It is one of the most distinguishing and attractive characteristics of the female sex. It comprises the beauties of the mind, as well as those of the body; and it not only heightens the desire of the male, but deters him from rudeness and improper behaviour. It is, therefore, the interest of the men to cherish, and not to injure, by indelicacy, a quality from which they derive so much pleasure and advantage.

Naked in nothing should a woman be,
But veil her very wit with modesty:
Let man discover, let not her display,
But yield her charms of mind without delay. YOUNG.

I remember, says a female author of great distinction, the count M——, one of the most accomplished young men in Vienna, when I was there; he was passionately in love with a girl of peerless beauty. She was the daughter of a man of great rank and influence at court; and, on these considerations, as well as in regard to her charms, she was followed by a multitude of suitors. She was lively and amiable, and treated them all with an affability which still kept them in her train, although it was generally known that she had avowed a predilection for the count, and that preparations were making for their nuptials. The count was of a refined mind and delicate sensibility; and loved her for herself alone; for the virtues which he believed dwelt in her beautiful form; and, like a lover of such perfections, he never approached her without timidity; and when he touched her, a fire shot through his veins that warned him not to invade the vermillion sanctuary of her lips. Such were his feelings, when, one night, at his intended father-in-law's, a party of young people were met to celebrate a certain festival; several of the young lady's rejected suitors being present. Forfeits were one of the pastimes, and all went on with a grateful merriment, till the count was commanded, by some witty mademoiselle, to redeem his glove by saluting the cheek of his intended bride. The count blushed, trembled, advanced to his mistress, retreated, advanced again—and at last, with a tremor that shook every fibre in his frame, with a modest grace, he put the soft ringlets, which played upon her cheek, to his lips, and retired to demand his redeemed pledge, in evident confusion. His mistress gaily smiled, and the game went on. One of her rejected suitors, but who was of a merry, unthinking disposition, was adjudged by the same indiscreet crier of the forfeits, to snatch a kiss from the lips of the object of his recent vows. A lively contest between the lady and gentleman lasted for a minute! but the lady yielded, though in the midst of a conclusive laugh; and the count had the mortification, the agony to see the lips, which his passionate and delicate love would not allow him to touch, kissed with roughness by another man, and one whom he despised. Without a word, he rose from his chair, and left the room, and the house—and never saw her more! Thus, by that *good-natured kiss*, the fair boast of Vienna lost a husband and her lover.

Although I consider this act of the count as ridiculously fastidious, yet I cannot but think it may prove a good hint to my fair readers. Certainly the sensitive plant cannot shrink more coyly than should the lovely virgin from the slightest touch of the immodest.

> "Learn, then, ye fair, to keep, the person sacred;
> * * * * * * like the pure mind,
> Be that array'd in modest dignity:
> Nor e'en its beauties flauntingly expose—
> Thus may ye keep the heart your charms have won."

The attractive grace and powerful charm of *Modesty* cannot be better illustrated, than by relating the following interesting narrative.

Charlotte Corday was tall and well-shaped, of the most graceful manners and modest demeanour. There was in her countenance, which was beautiful and engaging, and in all her movements a mixture of softness and dignity, which were evident indications of a heavenly mind. She came to Paris, and under a feigned pretext gained admission to that republican tyrant, Marat, in whose breast she plunged a dagger, acknowledged the deed, and justified it by asserting that it was a duty she owed her country and mankind, to rid the world of such a monster. Her deportment during her trial was *modest* and *dignified.*—There was a *softness* so engaging in her countenance, that it was difficult to conceive how she could have armed herself with sufficient intrepidity to execute the deed. Her answers to the questions of the tribunal, were full of *point* and *energy*. She sometimes surprised the audience by her *wit*, and excited their admiration by her *elo-*

quence. Her face sometimes *beamed* with *sublimity* and was sometimes *covered* with *smiles*. She retired while the jury deliberated on their verdict; and when she again entered the tribunal, there was a *majestic solemnity* in her demeanour, which perfectly became her situation. She heard her sentence with attention and composure, and left the court with *serenity*, her mind being long before prepared even for the last scene. It is difficult to conceive the *heroism* which she displayed in the way to execution. There was such an air of chastened exultation thrown over her countenance, that she inspired sentiments of love, rather than pity. The spectators, as she passed, uncovered their heads before her, and others gave loud tokens of applause. She ascended the scaffold with undaunted firmness. When the executioner informed her that her feet must be tied to the fatal plank, she submitted with a smile. When he took off her handkerchief, the moment before she bent under the fatal stroke, she *blushed deeply;* and her head, which was held up to the multitude the moment after, exhibited the last impression of offended modesty.

Such an instance of a young female, given up to destruction, and yet so tremblingly alive to modesty, that even in her last moments she resents the slightest insult to that, more than she dreads the executioner's axe, is a display of the charm, as well as the force of virtue triumphant over death, that deserves to be preserved in everlasting remembrance. Its effects on the crowd beggared all description. Admiration held the gazing thousands mute. And though, while gazing on her cheeks yet divinely enriched with the blush of deathless modesty, they shed their tears over her untimely fate, still their joy-glistening eyes seemed to thank her for such a proof of the divinity of virtue, and the birthright to Heaven. One of the spectators, a young man, by the name of *Lux*, had his feelings wrought to such an adoration of her virtues, that he proposed, in a pamphlet published the day after, to erect a monument to her honour, and to inscribe it with these words:—GREATER THAN BRUTUS. He was instantly sentenced to the guillotine. He received the news with joy, and died exulting that he had the honour of being offered up at the same altar with the immaculate *Charlotte Corday*.

As lamps burn silent, with unconscious light,
So modest ease, in beauty, shines most bright:
Unaiming charms with edge resistless fall,
And she who means no mischief, does it all. HILL.

Plutarch observes, that as thistles, though noxious things in themselves, are usually signs of an excellent ground wherein they grow, so bashfulness, though many times a weakness and betrayer of the mind, is yet generally an argument of a soul ingenuously and virtuously inclined.

We read of many, who, through modesty and fear, when they were to speak publicly, have been so disappointed, that they were forced to hold their tongue. Thus Cicero writes of Cario, that being to plead in a cause before the senate, he was not able to speak what he had premeditated. Also, Theophrastus being to speak before the people of Athens, was on a sudden so deprived of memory, that he remained silent. The same happened to the famous Demosthenes in the presence of king Philip. Nor are we ignorant that the like misfortunes have befallen many excellent persons in our times.

Get that great gift and talent, *Impudence;*
Accomplish'd mankind's highest excellence;
'Tis that alone prefers, alone makes great,
Confers alone, wealth, titles, and estate;
Gains place at court, can make a fool a peer,
An ass a bishop, can vil'st blockhead rear
To wear red hats, and sit in porph'ry chair OLDHAM.

When once men have bid adieu to modesty, there is nothing so unmanly, indecent, or reprehensible, but the brazen brow will venture upon; and nothing so high or great that his impudence does not pretend a title to.

A gentleman being asked how it came to pass that he, being a man of extraordinary natural parts, and those improved by a university education, foreign travel, diligent study, and the knowledge of most European languages; besides, being well born, and having many friends to recommend him, missed a considerable employment in the government, at a time when there were so many vacancies? The gentleman answered, The reason is plain;

I have too much modesty, and too little impudence, to be preferred, where a higher value is put upon the latter than the former.

> For he that has but impudence,
> To all things has a fair pretence;
> And put among his wants but shame,
> To all the world may lay his claim. HUDIBRAS

An Athenian, of decrepid age, came into the theatre at Athens, on a public night, when it was very much crowded. He went to that part of the house where his young countrymen were sitting, but instead of making room for him, they closed their ranks. By chance he came to a place where sat some young Lacedemonians of the first distinction, who, moved with the age of the man, in reverence to his years and hoary hairs, rose up, and placed him in an honourable seat amongst them; which, when the people beheld, with a loud applause, they approved the modesty of another city. At which one of the Lacedemonians said, "It appears that the Athenians do understand what is to be done, but they neglect the practice of it."

These young Lacedemonians were Heathens. How devoutly were it to be wished, that all young Christians would copy so fair an example, and learn to treat seniority with a respect equally amiable and endearing.

OF DRESS.

> If the rude verse that now detains your ear,
> Should to one female heart conviction bear;
> Recal one gentler mind from *Fashion's* crew,
> To give to Nature what is Nature's due;
> Whilst others mount the arduous heights of fame,
> To wake your feelings be my nobler aim:
> Nor yet unblest, if, whilst I fail to move,
> The fond attempt my kind intention prove. ROSCOE.

Pliny, one of the most celebrated naturalists of antiquity, pathetically laments, "that whilst *Nature* has given various clothing to the brute creation, and even fenced plants and trees with bark against the injuries of the cold and heat, she should have cast man into this world naked, unprovided against the inclemency of different climates and seasons." But, instead of agreeing with that philosopher, that *Nature* has, in this particular, acted more like a cruel step-mother, than a kind and indulgent parent to man, we cannot sufficiently extol her providence and wisdom. It was no more than consistent with equity to provide the irrational part of her works with clothing suitable to their circumstances; but man, whom she endued with the transcendant faculty of REASON, she hath very wisely left to accommodate himself to the difference of season and climate, and to clothe himself, accordingly, with the fleeces and skins of animals, and the products of various plants and trees.

Nature knows no other use of clothes but to keep the body *warm.* The shape God has given, is too often attempted to be *mended* by dress, and those who know no better, believe that mankind would be frights without its assistance. The bones of growing persons are so cartilaginous, that they readily yield to the slightest pressure, and easily assume the mould in which they are confined. Hence it is, that so many girls, in proportion to boys, are mis-shapen.

A lady, whose girls were all mis-shapen, though her family was numerous, consulted the celebrated anatomist, Mr. Cline, on the prevention. "*To have no stays—and to let the next girl run about like the boys*," was the excellent advice of this gentleman; which being complied with, none of the future children were afterwards *marred* by the ill-placed attention of the ignorant mother.

It has been said, observes a celebrated female author, that the *love of dress* is natural to the sex; and we see no reason why any female should be offended with the assertion. Dress, however, must be subject to certain rules, be consistent with the graces and with nature. By attending to these particulars is produced that agreeable exterior which pleases we know not why; which charms, even without that first and powerful attraction, beauty.

A beauty, carelessly array'd,
Enamours more, than if display'd.
All woman's charms were given,
And o'er the bosom's vestal white,
The gauze appears a robe of light,
That veils, yet opens *Heaven.*"

Fashion, in her various flights, frequently soars beyond the reach of propriety. Good sense, taste, and delicacy, then make their appeal in vain. Her despotic and arbitrary sway levels and confounds. Where is delicacy? where is policy? we mentally exclaim, when we see the fair inconsiderate votary of fashion exposing, unseemly, that bosom which good men delight to imagine the abode of innocence and truth. Can the gaze of the voluptuous, the unlicensed admiration of the profligate, compensate the woman of sentiment and purity, for what she loses in the estimation of the moral and just? But delicacy apart what shall we say to the blind conceit of the *robust*, the *coarse*, the *wanton fair one*, who thus obtrudes the ravages of time upon the public eye?

Nature having maintained a harmony between the figure of a woman and her years, it is decorous that the consistency should extend to the materials and fashion of her apparel. For youth to dress like age, is an instance of bad taste seldom seen. But age affecting the airy garment of youth, the transparent *drapery of Cos*, and the sportiveness of a girl, is an anachronism, as frequent as it is ridiculous.

Virgin, bridal beauty, when she arrays herself with taste, obeys an end of her creation; that of increasing her charms in the eyes of some virtuous lover, or the husband of her bosom. She is approved. But when the *wrinkled fair*, the *hoary-headed matron*, attempts to equip herself for conquest, to awaken sentiments which, the bloom of her cheek gone, her *rouge* can never arouse; then we cannot but deride her folly. There is a mediocrity which bounds all things, and even fixes the standard which divides virtue from bombast.

* * * * * * * Loveliness
Needs not the foreign aid of ornament;
But is, when unadorn'd, adorn'd the most.

It is worthy of remark, an unaffected beauty carries with it a respect and superiority that proceeds from the impulse of nature, and not from the artifice of those that have it.

"Taste," says Dr. Knox, "requires a congruity between the internal character, and the external appearance."—Another author, the discriminating Chesterfield, observed that "a prepossessing exterior is a perpetual letter of recommendation."

Hence we see that the desire of exhibiting an amiable exterior is essentially requisite in women. It is to be received as an unequivocal symbol of those qualities, which we seek in a wife; it indicates cleanliness, sweetness, a love of order, and universal propriety. What, then, is there to censure in a moderate consideration of dress? Nothing. We may blame, when we find extravagance, profusion, misappropriation; the tyranny of fashion; slavery to vanity; in short bad taste!

Fashions like manners, still from courts descend,
And what the great begin, the vulgar end.
Honour's a mistress all mankind pursue;
Yet most mistake the false one for the true:
Lur'd by the trappings, dazzled by the paint,
We worship oft the idol for the saint.
Courted by all, by few the fair is won;
Those lose who seek her, and those gain who shun,
Naked she flies to merit in distress,
And leaves to courts the garnish of her dress.

Although we cannot suppose prodigality in dress would recommend the wearers to persons of sense; yet we consider that a decent habit, proportioned to one's quality and business, is essentially necessary.

Philopæmon, commonly called the Great, was a person of a very mean aspect, and one that took no care to set himself off with decent apparel, by which means he was often affronted by such people as could not distinguish the man from his clothes. He sent notice to one of his friends in Megara that he would take a supper with him, who went immediately to market to provide an entertainment, and requested his wife, in the mean time, to right up the house that it might be fit to entertain so noble a guest.—Philopæmon, it seems, made greater haste than his attendants; and the wife of the house, by the meanness of his dress, taking him to be a servant, employed him in cleaving wood for the fire, which he was busy at when his friend returned from the market, who being astonished at the sight, said, "Why does my great friend Philopæmon dishonour himself and me, by stooping to so mean an office?" The great man, with a cheerful and smiling countenance, answered, "I am taking penance for my homely face and bad apparel."

Though we cannot hope entirely to escape the unpleasant sensations, or altogether to ward off the fatal effects, occasioned by the sudden changes of our climate; yet, considering properly *the nature of clothing*, we may avoid much of the danger. If ladies are subject to *catch cold* more frequently than men, it is not *alone* their delicacy of constitution, or their being more confined within doors; but the frequent changes they make in the quality and quantity of their garments, and sometimes, however fearful of a partial current of air, because they expose those parts of the body that a little before had been warmly clad. If a greater proportion of females fall victims to *consumption*, is it not because, losing sight more than men of its primary purpose, says Dr. Beddoes, they regulate their dress solely by fantastic ideas of elegance?"

After the high encomiums bestowed upon flannel by so many respectable authors, both ancient and modern, and by persons who, from long experience, have ascertained its beneficial effects, it is surprising that any individual should be whimsical or hardy enough to dispute its *general* salubrity, merely with a view to establish its favourite hypothesis.

It has been objected, that flannel worn next the skin is debilitating, because it too much increases perspiration; but this is not founded on truth, since perspiration, *as long as the skin remains dry*, never can be hurtful. In answer to another objection against the wearing of flannel, it is certain that a flannel shirt may preserve the body as clean, and much cleaner, than linen, *if as frequently changed.*

To cold phlegmatic temperaments; to all who lead a sedentary life; to individuals subject to catarrhs, or frequent colds, gout, diarrhœa, and partial congestions of the blood; to all nervous patients and convalescents from severe chronic disorders; to persons who are too susceptible of the impressions of the atmosphere; and, lastly, in such climates and pursuits of life, as are exposed to frequent and sudden changes of air, the wearing of flannel next to the skin is certainly a salutary dress. It will also be found a better preventive of contagion than any other; because while it encourages perspiration, it at the same time removes the inhaled poisonous particles. It is a mistaken notion that flannel is too warm a clothing for summer. I have never found the least inconvenience from wearing it during the hottest weather; but, on the contrary, have experienced the greatest advantage. A celebrated author's favourite recipe for health was, "to leave off flannel on mid-summer day, to resume it the day following."

To keep an animal in health, beside the retaining of a due degree of animal heat, there must be a continual generation of new juices, and a perpetual discharge of the old. Without the due quantity of *perspiration*, which, with us, depends very much on our clothing, neither the vegetable nor animal can continue in health. A plant, whose *perspiration* is stopt, becomes sickly and dies. Even an egg, whose shell has been covered with a varnish, and the *perspiration* stopt, will produce no animal.

Whilst treating on clothing, I would recommend it to every person to be careful in observing that the linen which they put on, and the sheets in which they sleep are properly dried. Due care should also be taken to change the stockings, and other clothing, as speedily as possible after their becoming wet from exposure to rain or snow. Those who neglect these cautions will expose themselves either to rheumatism, fever, pleurisy, cough, consumption, or some other disease of a dangerous or even fatal nature.

OF CLEANLINESS.

The grand discharge, the effusion of the skin,
Slowly impair'd, the languid maladies
Creep on, and through the sick'ning functions steal;
As, when the chilling east invades the spring,
The delicate Narcissus pines away
In hectic langour; and a slow disease
Taints all the family of flowers, condemned
To cruel heav'ns. But why, already prone
To fade, should beauty cherish its own bane!
O shame! O pity! nipt with pale quadrille,
And midnight cares, the bloom of Albion dies. ARMSTRONG.

CLEANLINESS may be considered the grand secret of preserving beauty, as well as promoting health; and therefore is applicable to all ages and sexes. It maintains the limbs in their pliancy; the skin in its softness; the complexion in its lustre; the eyes in their brightness; the teeth in their purity; and the constitution in its fairest vigour.

The frequent use of tepid baths is not more grateful to the sense, than it is salutary to health, and to beauty. By such ablution, all impurities are thrown off; cutaneous obstructions removed; and, while the surface of the body is preserved in its original brightness, many threatening disorders are put to the rout. Indeed, so important is this regimen, that every family should make a bathing vessel as indispensable an article in the house as a table.

Against the rigours of a damp, cold Heaven,
To fortify their bodies, some frequent
The gelid cistern; and, where nought forbids,
I praise their dauntless heart. * * * * *
With us, the man of no complaint demands
The warm ablution, just enough to clear
The sluices of the skin; enough to keep
The body sacred from indecent soil.
Still to be pure, ev'n did it not conduce,
As much it does, to health, were greatly worth
Your daily pains. 'Tis this adorns the rich;
The want of this, is poverty's worst wo—

With this external virtue, age maintains
A decent grace; without it, youth and charms
Are loathsome. This the venal graces know;
So, doubtless, do your wives; for married sires
As well as lovers, still pretend to taste;
Nor is it less, all prudent wives can tell,
To lose a husband's than a lover's heart. ARMSTRONG.

Cleanliness is certainly agreeable to our nature. It sooner attracts our regard than even finery itself, and often gains esteem where that fails. It is an ornament to the highest, as well as the lowest situation, and can not be dispensed with in either.

I had occasion, says the author of the Spectator, to go a few miles out of town, some days since, in a stage-coach, where I had for my fellow-travellers, a dirty beau, and a pretty young quaker woman. Having no inclination to talk much, I placed myself backward, with a design to survey them, and to pick a speculation out of my two companions. Their different figures were sufficient to draw my attention. The gentleman was dressed in a suit, the ground whereof had been black, as I perceived from some few spaces that had escaped the powder which was incorporated with the greatest part of his coat; his periwig, which cost no small sum, was after so slovenly a manner cast over his shoulders, that it seemed not to have been combed since the year 1682; his linen, which was not much concealed, was daubed with plain *Spanish*, from the chin to the lowest button, and the diamond upon his finger, which naturally dreaded the water, put me in mind how it sparkled amidst the rubbish of the mine where it was first discovered.

On the other hand, the pretty quaker appeared in all the elegance of cleanliness. Not a speck was to be found upon her. A clean, oval face, just edged about with little thin plaits of the purest cambric, received great advantage from the shade of her black hood; as did the whiteness of her arms from that sober coloured stuff in which she had clothed herself. The plainness of her dress was very well suited to the simplicity of her phrases; all which, put together, gave me an exalted sense of both her good taste and her pure innocence.

This adventure occasioned my throwing together a few hints upon *cleanliness*, which I shall consider as one of the *half-virtues*, as *Aristotle* calls them, and shall recommend under it the three following heads. As it is a mark of politeness; as it produces regard; and as it bears analogy to purity of mind.

First, it is a mark of politeness. It is universally agreed upon, that no one unadorned with this virtue, can go into company without giving a manifest offence. The easier or higher any one's fortune is, this duty arises proportionally. The different nations of the world are as much distinguished by their cleanliness, as by their arts and sciences. The more any country is civilized, the more they consult this part of politeness. We need but compare our ideas of a female *Hottentot* and an *English* beauty, to be satisfied of what has been advanced.

In the next place, cleanliness may be said to be the foster-mother of love. Beauty, indeed, most commonly produces that passion in the mind, but cleanliness preserves it. An indifferent face and person, kept in perpetual neatness, has won many a heart from a pretty slattern. Age itself is not unamiable, while it is preserved clean and unsullied; like a piece of marble constantly kept clean and bright, we look on it with more pleasure than a new vessel that is cankered with rust.

We might observe *farther*, that as cleanliness renders us agreeable to others, so it makes us easy to ourselves; that it is an excellent preservative of health, and that several vices, destructive both to mind and body, are inconsistent with the habit of it.—We find, from experience, that through the prevalence of custom, the most vicious actions lose their horror by being made familiar to us. On the contrary, those who live in the neighbourhood of good example, fly from the first appearance of what is shocking. It fares with us much after the same manner as to our ideas. Our senses, which are the inlets of all the images conveyed to the mind, can only transmit the impressions of such things as usually surround them. So that pure and unsullied thoughts are naturally suggested to the mind by those objects that perpetually encompass us, when they are beautiful and elegant in their kind.

OF PATRIOTISM.

MAN, through all ages of revolving time,
Unchanging man, in every varying clime,
Deems his own land, of every land the pride,
Belov'd by Heaven o'er all the world beside;
His home a spot of earth supremely blest,
A dearer, sweeter spot than all the rest. MONTGOMERY.

PATRIOTISM, properly defined, is the love of the laws and of the commonwealth. It is a sentiment which makes us prefer the interest of the public to our own. At the very name of country, the wise and brave feel an enthusiasm which renders them invincible.

Patriotism also contributes greatly to the promotion of good morals; and hence to health, and every other blessing, both private and public. Rome, Athens, and Lacedæmon, owed all their glory to patriotism; and their nothingness to their forgetfulness of their country, their laws, and morals.

Happy if these awful lessons, read to us in the examples of the great republic of antiquity, could but avail to kindle among ourselves that divine patriotism which once exalted them to such glory among the nations. Among innumerable other blessings, health would then be promoted. For the noble virtues of the soul constituting *patriotism*, as magnanimity, disinterestedness, valour, and consciousness of doing our duty, would diffuse through the heart that habitual complacency and joy most friendly to health; which would be still further promoted by that simplicity of manners, and activity of life, which belongs to Republicans. Whereas, on the contrary, in proportion as national patriotism decays, health becomes enervated by luxury and other vices, which are sure to overspread a nation that has lost the animating fire of patriotism.

John II. king of Portugal, who for the nobleness of his mind was worthy of a greater kingdom, when he heard there was a bird called the Pelican, that tears and wounds her breast with her bill, that with her own blood she may restore her young ones to life, when left as dead by the bitings of serpents, this excellent prince took care that the figure of this bird, engaged in this action, should be added to his other royal devices; that he might hereby show, that he was ready, upon occasion, to part with his own blood for the welfare and preservation of his people and country. Pity it is to conceal their names, whose minds have been, in this respect, as pious and princely as his, not fearing to redeem the lives of their fellow-citizens at the price of their own.

Themistocles, the Athenian general, after his many famous exploits, was banished the country, and sought after to be slain. He chose, therefore, to put himself rather into the power of the Persian king, his enemy, than to expose himself to the malice of his fellow-citizens. He was by him received with great joy; insomuch, that the king in the midst of his sleep, was heard to cry out thrice aloud, "I have with me Themistocles, the Athenian." He also did him great honour, for he allotted him three cities for his table provisions, and two others for the furniture of his wardrobe and bed. While he remained in that court with such splendour and dignity, the Egyptians rebelled, encouraged, and also assisted by the Athenians. The Grecian navy had come as far as Cyprus and Cilicia; and Cimon, the Athenian admiral, rode master at sea. This caused the Persian king to levy soldiers, and appoint commanders to repress them. He also sent letters to Themistocles, then at Magnesia, importing that he had given him the supreme command in that affair, and that he should now be mindful of his promise to him, and undertake this war against Greece. But Themistocles was no way moved with anger against his ungrateful countrymen, nor incited to wage war with them by the gift of all his honour and power; for, after having sacrificed, he called about him his friends, and, having embraced them, he drank a strong poison, and chose rather to close his own life, than to be an instrument of evil to his native country, which yet had deserved so ill at his hands. Thus died

Themistocles, in the sixty-fifth year of his age, most of which time he had spent in the management of the republic at home, or as the chief commander abroad.

At the siege of Turin by the French army, in 1640, a sergeant of the Piedmontese guards signalized himself by a singular example of patriotism; this sergeant guarded, with some soldiers, the subterraneous parts of a work of the citadel. The mine was charged, and nothing was wanting but what is called a sausage or pudding, to blow up several companies of grenadiers who served in the work and posted themselves in it. The loss of the work would have accelerated the surrender of the place.—The sergeant, with great resolution, ordered the soldiers he commanded to retire, begging them to desire the king his master to protect his wife and children. He then set fire to the powder, and perished for his country.

On the surrender of Lord Cornwallis, in the American war, the Loyalist of 22 guns, then in the Chesapeake, became a party in that disastrous event; her crew were conveyed to the Count de Grasse's fleet—of that fleet the Ardent, captured off Plymouth, made one, but was then in a very leaky condition. The Count being informed that the carpenter of the Loyalist was a man of talents, and perfectly acquainted with the nature of the chain pump, of which the French were ignorant, ordered him on board the Ville de Paris, and addressed him thus: "Sir, you are to go on board the Ardent directly; use your utmost skill, and save her from sinking, for which service you shall have a premium, and the encouragement due to the carpenter of an equal rate in the British navy; to this I pledge my honour; on refusal, you will, during your captivity, be fed on bread and water only."—The tar, surprised at being thus addressed in his own language, boldly answered; "Noble Count, I am your prisoner. It is in your power to confine me; but never let it be said that a British sailor forgot his duty to his king and country, and entered voluntarily into the service of the enemy; your promises are no inducement for me, and your threats shall not force me to injure my country."

There is a land, of every land the pride,
Belov'd by Heaven o'er all the world beside;
Where brighter suns dispense serener light,
And milder moons emparadise the night;
A land of beauty, virtue, valour, truth,
Time-tutor'd age, and love-exalted youth.
"Where shall that *land*, that *spot of earth* be found?"
Art thou a *man?*—a *patriot?*—look round;
O thou shalt find, howe'er thy footsteps roam,
That land *thy* COUNTRY, and that spot *thy* HOME!

MONTGOMERY.

As Americans, we feel the love of country, not merely because it is the land where we were born, but the land where we enjoy *freedom*, *equal rights*, and every blessing that can sweeten life, and gild it over with glory. Hence we need not have gone back to ancient times to show what men have dared from patriotism. No, thank God! we have, in our own country, and in our own days, names as bright as ever adorned the annals of time. The memory of my exulting reader is already flying before me to a *host* of heroes, who even courted wounds and death for their country; to Lawrence, whose last words were "*Don't give up the Ship!*"—to Burrows, who, when desperately wounded on the deck, said, "*I won't be carried below; prop me up, that I may see my brave men at their guns!*"—to Lowry Donaldson, who cried, "*My gallant countrymen, I die, but don't let the cause of freedom die with me!*"—to Daviess, who, on the field of Tippecanoe, smiling in the arms of fate exclaimed, "*Thank God, I die in the best of causes!*"—to a *common sailor*, who, while below, dressing for a mortal wound, and hearing his companions on deck shouting for *victory*, snatched away the shattered stump of his arm, saying, "*Let me go, doctor: I know I am dying, but I must give one huzza more for my country!*"—to Pike, Covington, Gibson, Wood, Holmes, Stoddard, Beasley, Mead, Spencer, Wattles, Hoppuck, Jack, Bradford, Armistead, Vanhorn, Olmstead, Middleton, Woolfolk, Smith, M'Donough, Blaney, Legate, Yates, Jackson, O'Fling, *of the army*—to Allen, Ludlow, Wilmer, Funk, Babbit, Hamilton, Howell, Stansbury, Gamble, Cowell, Williams, Brookes, Bush, Broome, *of the navy*—to Davis, Allen, Lauderdale, Henderson, Graves, Hickman, Hart, M'Cracken, Hooper, Pace, Buel, Hamilton, Evans, Quarles, Brown, Belknap, Blakesley, Clagget, Clemm, Rosevelt, Poe, *of the militia*,—and a thousand other MARTYRS OF LIBERTY, who all rushed into the battle as if animated by the immortal WASHINGTON'S injunction,—"*Remember, that you are going to fight for liberty!*" and who all died rejoicing that they had shed their blood to cement her HOLY FABRIC.

"*To live with fame the gods allow to many; but to die with equal lustre, is a gift which Heaven selects from all the choicest boons of fate, and with a sparing hand on few bestows.*"

OF RELIGION.

Yet, though kind Heav'n points out th' unerring road,
That leads through nature up to bliss and God;
Spite of that God, and all his voice divine,
Speaks to the heart, or teaches from the shrine,
Man, feebly vain, and impotently wise,
Disdains the manna sent him from the skies;
Tasteless of all that virtue gives to please,
For thought too active, and too mad for ease,
From wish to wish in life's mad vortex tost,
For ever struggling, and for ever lost;
He scorns Religion, though her seraphs call,
And lives in rapture, or not lives at all.

CAWTHORN.

SOME of my readers may perhaps be surprised, that in a book which professes to treat of *Health*, I should so far forget the text as to introduce the subject of *Religion*.—But I trust they will cease to wonder when they consider that health is the physical result of nicely balanced appetites and passions, and that there exists no power on earth, that can so attune these into harmony, as *Religion*. Cast your eye around you, and say whence have sprung most of the diseases, both mental and corporal, but from lack of this divine guardian of man, *Religion*. By this great name, I do not mean that hypocrisy which consists in gloomy faces, nor that narrow bigotry which rests on particular forms; the one only shows that religion is very galling to their feelings; the other is but too often false and treacherous, deluding those who behold them, into the opinion of their superior sanctity and virtue. Nor can I entertain a more favourable opinion of those who make a profession of religion and exhibit too much levity. It is a maxim among politicians, "that those who know not how to dissemble, know not how to rule." But this will not hold in religion, where virtue is at all times to be the guide of our actions.

There are some sectarians who are so illiberal as to express a belief, that those only of *their* persuasion are in the right road to Heaven! Strange infatuation! Can this be consistent with the Scriptures or reason? The pure spirit of the gospel of Christ breathes forth a holy religion, founded on meekness, charity, kindness, and brotherly love.

Could we forbear dispute, and practise love,
We should agree as angels do above.
Where love presides, not vice alone does find
No entrance there, but virtues stay behind:
Both faith and hope, and all the meaner train,
Of mortal virtues, at the door remain.
Love only enters as a native there,
For, born in Heaven, it does but sojourn here.

WALLER.

It is of the utmost importance to guard against extremes of every kind in religion, lest by seeking to avoid one rock we split upon another. It has been long the subject of remark, that SUPERSTITION and ENTHUSIASM are two capital sources of delusion. Superstition, on the one hand, attaching men with immoderate zeal to the ritual and external points of religion, and enthusiasm, on the other, directing their whole attention to internal emotions and mystical communications with the spiritual world; while neither the one nor the other has paid sufficient regard to the great moral duties of the Christian life.

Blest is the man, as far as earth can bless,
Whose measur'd passions reach no wild excess;
Who, urg'd by Nature's voice, her gifts enjoys,
Nor other means than Nature's force employs.

ZIMMERMAN.

In mental illusion, *Imagination*, when she first begins to exercise her powers, seizes on some fact, of the real nature of which the mind has but an obscure idea, and for want of tracing it thro' all its connexions and dependencies, misleads reason into the darkest paths of error. The wild conjectures, and extravagant opinions which have issued from this source, are innumerable.—The voice of the calm inquirer, *Reason*, is incapable of being heard amidst the tumult, and the favourite image is animated and enlarged by the glowing fire of the *Passions*. No power remains to control or regulate, much less to subdue, this mental ray, which inflames the whole soul, and exalts it into the fervour of *Enthusiasm*, hurries it into the extravagance of *Superstition*, or precipitates it into the furious frenzies of *Fanaticism*.

The fire of fanaticism is so subtilely powerful, that it is capable of inflaming the coldest minds. The rapidity of its progress certainly depends, in a great degree, on the nature of the materials on which it acts; but, like every dangerous conflagration, its first appearances should be watched, and every means taken to extinguish its flame.

In the course of my practice as a physician, says Dr. Zimmerman, I was called upon to attend a young lady, whose natural disposition had been extremely cheerful, until a severe fit of sickness damped her spirits, and rendered her averse to all those lively pleasures which fascinate the youthful mind. The debility of her frame, and the change of her temper, were not sufficiently attended to in the early stages of her convalescence. The anxiety of her mind was visible in the altered features of her face; and she was frequently heard to express a melancholy regret, that she had consumed so many hours in the frivolous, though innocent, amusements of her age. Time increased, by almost imperceptible degrees, these symptoms of approaching melancholy; and at length exhibited themselves by penitential lamentations of the *sin* she had committed with respect to the most trifling actions of her life, and in which no shadow of offence could possibly be found. At the time I was called in, this superstitious melancholy was attended with certain indications of mental derangement. The distemper clearly originated in the indisposition of the body, and the gloomy apprehensions which disease and pain had introduced into the mind during a period of many months. This once lively, handsome, but now almost insane female, was daily attacked with such violent paroxysms of her complaint, that she lost all sense of her situation, and exclaimed, in horrid distraction and deep despair, that her perdition was already accomplished, and that *the fiends were waiting to receive her soul and plunge it into the bitterest torments of hell.* Her constitution, however, still fortunately retained sufficient strength to enable me, by the power of medicine, gradually to change its temperament, and to reduce the violence of the fever which had been long preying on her life. Her mind became more calm in proportion as her nerves recovered their former tone; and when her intellectual powers were in a condition to be acted on with effect, I successfully counteracted the baleful effects of *Superstition* by the wholesome infusion of real *Religion*, and restored, by degrees, a lovely, young, and virtuous woman to her family and herself.

Oh! would mankind but make fair *Truth* their guide,
And force the helm from Prejudice and Pride,
Were once these maxims fix'd that *God*'*s* our friend,
Virtue our good, and *Happiness* our end,
How soon must reason o'er the world prevail,
And *Eerror*, *Fraud*, and *Superstition* fail!
None would hereafter, then, with groundless fear,
Describe *The Almighty* cruel and severe;
Predestinating some, without pretence,
To Heaven; and some to hell for no offence;
Inflicting endless pains for transient crimes,
And favouring sects or nations, men or times.

ZIMMERMAN.

It is that fervent love of God and man, constituting the heart-gladdening religion of Christ, which I mean. This teaches us to deny ourselves, and follow in the exercise of all virtues, wherein consists the life of religion, laying aside all idle quarrels, self-interest, and needless debates about circumstantials; for this religion is not in words but in works; not in opinions but in assurances; not in speculation but in practice. It is this religion all men ought to love for their own sakes, because a holy life, which it teaches, gives a comfortable death and a happy eternity.

He that alone would wise and mighty be,
Commands that others love as well as he.
Love as he lov'd—How can we soar so high?
He can add wings when he commands to fly.
Nor should we be with this command dismay'd;
He that examples give will give his aid.
For he took flesh, that when his precepts fail,
His practice, as a pattern, may prevail. WALLER.

The man who loves God, enjoys that first of felicities, the *consciousness* of having placed his affections on the only object that truly deserves them. O! how amiable is *gratitude;* especially when directed to the Supreme Benefactor. It is the most exalted principle that can actuate the heart of man.

When a good man looks around him on this vast world, where beauty and goodness are reflected from every object, and where he beholds millions of creatures in their different ranks, enjoying the blessings of existence, he looks up to the UNIVERSAL FATHER, and his heart-glows within him. And in every comfort which sweetens his own life, he discerns the same indulgent hand. Thus it is that gratitude prepares a good man for the enjoyment of prosperity; for not only has he as full a relish as others of the innocent pleasures of life, but, moreover, in these he holds communion with God. In all that is good or fair he traces his hand. From the beauties of nature, from the improvements of art, from the blessings of public or private life, he raises his affections to the great Fountain of all happiness which surrounds him, and this widens the sphere of his enjoyments, by adding to the pleasures of sense, the far more exquisite joys of the heart.

If this goodness of God is so admirably seen in the works of Nature, and the favours of Providence, with what a noble superiority does it even triumph in the *ministry of redemption.* Redemption is the brightest mirror in which to contemplate the most lovely attributes of the Deity.

Redemption! oh thou beauteous mystic plan,
Thou salutary source of life to man!
What tongue can speak thy comprehensive grace?
What thought thy depths unfathomable trace?
O! blest Redeemer, from thy sacred throne,
Where saints and angles sing thy triumphs won!
From that exalted height of bliss supreme,
Look down on those who bear thy sacred name;
Restore their ways, inspire them by thy grace,
Thy laws to follow, and thy steps to trace;
Thy bright example to thy doctrine join,
And by their morals prove their faith divine!

Boyse.

Religion is so far from debarring us of any innocent pleasure or comfort of human life, that it purifies our enjoyments, and renders them more grateful and generous; and thus makes us habitually cheerful.

Thou, Cheerfulness, by Heaven design'd
To sway the movements of the mind;
Whatever fretful passion springs,
Whatever wayward fortune brings
To disarrange the power within,
And strain the musical machine;
Thou, goddess, thy attempering hand
Doth each discordant string command,
Refines the soft and swells the strong,
And, joining Nature's general song,
Through many a varying tone unfolds
The harmony of human souls.

Akenside.

Cheerfulness is consistent with every species of virtue and practice of religion. It bears the same friendly regard to the *mind* as to the *body;* it banishes all anxious care and discontent, soothes and composes the passions, and keeps the soul in a perpetual calm.

Providence did not design *this world* should be filled with *murmurs* and *repinings*, and that the heart of man should be involved in perpetual *gloom* and *melancholy*.

What blessings Thy free bounty gives
Let me not cast away;
For God is paid when man receives;
T' enjoy is to obey. POPE.

As I was between sleeping and waking, says a sublime author, I perceived one of the most shocking figures imagination can frame, advancing towards me. She was dressed in black, her eyes deep sunk in her head, and her complexion pale and livid as the countenance of death. Her looks were filled with terror and unrelenting severity, and her hands armed with whips and scorpions. As soon as she came near, with a horrid frown, and a voice that chilled my very blood, she bade me follow her. I obeyed, and she led me through rugged paths, beset with briers and thorns, and a deep solitary valley.—Wherever she passed, the fading verdure withered beneath her steps; her pestilential breath infected the air with malignant vapours, obscured the lustre of the sun, and involved the fair face of Heaven in universal gloom. Dismal howlings resounded through the forests; from every baleful tree the night raven croaked his dreadful note; and the prospect was filled with desolation and horror. In the midst of this tremendous scene, she addressed me in the following manner.

"Retire with me, O rash, unthinking mortal, from the vain allurements of a deceitful world, and learn that *pleasure* was not designed the portion of human life. Man was born to *mourn*, and to be *wretched;* this is the condition of all below the stars, and whoever endeavours to oppose it, acts in contradiction to the will of Heaven. Fly then from the fatal enchantments of youth and social delight, and here consecrate the solitary hours to lamentation and wo. *Misery* is the duty of all sublunary beings, and every *enjoyment* is an offence to the DEITY, who is to be worshipped only by the mortification of every sense of pleasure, and the everlasting exercise of sighs and tears."

This melancholy picture of life quite sunk my spirits, and seemed to annihilate every principle of happiness within me. I threw myself beneath a blasted yew, where the winds blew cold and dismal round my head, and dreadful apprehensions chilled my heart. Here I resolved to lie till the hand of death, which I impatiently invoked, should put an end to the miseries of a life so deplorably wretched. In this sad situation, I espied on one hand of me a deep muddy river, whose heavy waves rolled on in slow and sullen murmurs, when I found myself suddenly surprised by the sight of the loveliest object I ever beheld. The most engaging charms of youth and beauty appeared in all her form; effulgent glories sparkled in her eyes, and their awful splendour were softened by the gentlest looks of complacency and peace. At her approach, the frightful spectre, who had before tormented me, vanished away, and with her all the horrors she had caused. The gloomy clouds brightened in cheerful sunshine; the groves recovered their verdure; and the whole region looked gay and blooming as the garden of Eden. I was quite transported at the unexpected change, and reviving hope began to glad my thoughts, when, with a look of inexpressible sweetness, my beauteous deliverer thus uttered her divine instructions:

"My name is Religion. I am the offspring of *Truth* and *Love*, and the parent of *Benevolence*, *Hope*, and *Joy*. That monster from whose power I have freed you, is called *Superstition;* she is the child of *Discontent*, and her followers are *Fear* and *Sorrow*. Thus, different as we are, she has often the insolence to assume *my name* and *character*, and seduces unhappy mortals to think us the *same*, till she at length drives them to the borders of despair; that dreadful abyss, into which you were just going to sink.

"Look around, and survey the various beauties of the globe, which Heaven has destined for the seat of the human race, and consider whether a world thus exquisitely framed, could be meant for the abode of misery and pain. For what end has the lavish hand of Providence diffused such innumerable objects of delight, but that all might *rejoice* in the privilege of existence, and be filled with gratitude for the blessings he has sent, is virtue and obedience; and to reject them merely as means of pleasure is pitiable ignorance, or absurd perverseness. Infinite goodness is the source of created existence; the proper tendency of every rational being, from the highest order of raptured seraphs, to the meanest rank of men, is to rise incessantly from lower degrees of happiness to higher. They have each faculties of assigned them for various orders of delight."

"What!" cried I, "is this the language of *Religion?* Does she lead her votaries through flowery paths, and bid them pass an unlaborious life?" "The *true enjoyments* of a reasonable being," answered she, mildly, "do not consist in *unbounded indulgence*, or *luxurious ease*, the *tumult* of *passions*, the *langour* of *indulgence*, or the *flutter* of *light amusements.* Those are often raised into the *greatest transports* of *joy*, who are subject to the *greatest depressions* of *melancholy:* on the contrary, *Cheerfulness*, though it does not give the mind such an exquisite gladness, prevents us from falling into depths of sorrow. *Mirth* is like a flash of lightning, that breaks through a gloom of clouds, and glitters for a moment. *Cheerfulness* keeps up a kind of day light in the mind, and fills it with a steady and perpetual serenity."

Repinings and *secret murmurs* of heart give imperceptible strokes to those delicate fibres of which we are composed and wear out the machine insensibly; not to mention the injury they do the blood, and those irregular disturbed motions which they raise in the vital functions. Whereas *Cheerfulness* bears the same friendly regard to the *mind* as to the *body;* it banishes all anxious care and discontent, soothes and composes the passions, and keeps the soul in a perpetual calm.

To aim at a constant succession of high and vivid sensations of pleasure, is an idea of happiness altogether chimerical. Calm and temperate enjoyment is the utmost that is allotted to man. Beyond this, we struggle in vain to raise our state; and, in fact, depress our joys, by endeavouring to heighten them.

Look around you on the world; reflect on the different societies which have fallen under your observation; and think who among them enjoys life to most advantage; whether they who, encircled by gay companions, are constantly fatiguing themselves in quest of pleasure; or they to whom pleasure comes unsought, in the course of active, virtuous, and manly life.

Religion or *philosophy* calls you not to renounce pleasure, but teaches you how to enjoy it. Instead of abridging it, we exhort you to pursue it with safety. We propose measures for securing its possession, and for prolonging its duration. Though she may appear to contract the bounds of enjoyment, you will upon reflection find, that in truth she enlarges them: what is delightful in human enjoyment she readily allows, and not only allows, but heightens, by that grateful relish which a good conscience gives to every pleasure; and not only heightens, but adds, when correcting the excess of some passions, she gives room for the growth of others. Amid the turbulence of riot and the fumes of intoxication, unknown are the *pleasures* of generous friendship, heart-felt love and domestic society; unknown the *conscious satisfaction* which accompany honourable pursuits, and the justly acquired esteem of those who surround us.

It was the daily practice of that eminent physician, Dr. Boerhaave, throughout his whole life, as soon as he arose in the morning, which was generally very early, to retire for an hour to private prayer and meditation on some part of the Scriptures. He often told his friends, when they asked him how it was possible for him to go through so much fatigue, that it was this which gave him spirit and vigour in the business of the day. This, therefore, he recommended, as the best rule he could give: for nothing, he said, could tend more to the health of the body, than the tranquillity of the mind; and that he knew nothing which could support himself or his fellow-creatures, amidst the various distresses of life, but a well grounded confidence in the Supreme Being, upon the principles of Christianity.

We have all of us experienced the effects which any indisposition of the body, even though slight, produces on external prosperity. Visit the gayest and most fortunate man on earth, only with sleepless nights, disorder any single organ of the senses, corrode but one of his smallest nerves, and you shall presently see all his gaiety vanish; and you shall hear him complain that he is a miserable creature, and express his envy of the peasant and the cottager. And can you believe that a disease in the soul is less fatal to enjoyment than a disease in the animal frame; or that a sound mind is not as essential as a sound body to the happiness of man? Let us rate sensual gratifications as high as we please, we shall be made to feel that the seat of enjoyment is in the soul.

> Ah! what is life? with ills encompass'd round,
> Amidst our hopes, fate strikes the sudden wound:
> To-day the statesman of new honour dreams,
> To-morrow death destroys his airy schemes;
> Is mouldy treasure in thy chest confin'd?
> Think all that treasure thou must leave behind!
> Thy heir with smiles shall view thy blazon'd hearse,
> And all thy hoards with lavish hand disperse.
> Should certain fate th' impending blow delay,
> Thy mirth will sicken, and thy bloom decay;
> Then feeble age will all thy nerves disarm,
> No more thy blood its narrow channels warm. GAY.

Let the affections of a man be once softened and dulcified with *Divine love*, and he is ever secure from the sudden apoplexies of the passionate, the poisonous cups of the drunkard—the murdering pistol of the duellist—the assassinating dagger of the jealous —the loathsome diseases of the harlot—and the wasting hectics of the gambler.

Though it is an ill man's interest there should be no God, because then there should be no punishment for sin, and though this interest passes into argument, yet it is never so conclusive as to pass into an entire satisfaction; for we cannot believe any person that has the use of his rational faculties, and gives himself the liberty of thinking, can deny the existence of a Deity, both as to creation and providence. Then, if every man believes there is a God, not to live in obedience to his precepts is to enhance one's guilt, and bring conscience as a witness to convict the offender of wilful transgressions. As for professed Atheists, or such as have pretended to be so, and durst presume to affront their Deities, let others read the blackness of their sin in the exemplary punishment that attended it.

A young gentleman of the City of Florence, in Italy, being accounted brave and dexterous at single sword, was to duel another young man called Forchebene. They were accompanied into the field by several of their acquaintance, where a friend saluted the former with his good wishes, saying, "I pray God give you victory over your antagonist." The insolent spark answered, "How can he fail to do otherwise?" Forchebene overhearing them, replied, "These blasphemous words will render me the executioner of Divine vengeance." To it they went with equal fury, when the combat, for some time, was very doubtful; but at length Forchebene made such a home-thrust into his adversary's mouth, that he fixed his tongue to his neck, the sword appearing above six inches on the other side; of which wound he died immediately, and had his death in the part that offended.

Oh man! degenerate man! offend no more!
Go, learn of brutes thy Maker to adore!
Shall these through every tribe his bounty own,
Of all his works ungrateful thou alone!
Mark how the wretch his awful name blasphemes,
His pity spares—his clemency reclaims!
Observe his patience with the guilty strive,
And bid the criminal repent and live;
Recall the fugitive with gentle eye,
Beseech the obstinate he would not die!
Amazing tenderness—amazing most
The soul on whom such mercy should be lost! BOYLE.

There are many wicked men who will speak unbecoming things of God, in a humour of bravado amidst company, but will tremble before him in solitude, and shudder at the approach of death.

Man makes a death which nature never made,
Then on the point of his own fancy falls,
And feels a thousand deaths in fearing one. YOUNG.

Voltaire, a man who, after having long and too justly been considered the patron of infidelity, and after having shown himself equally the enemy to every religious establishment, at length, to the astonishment of all serious minds, and at the close of a long life of near eighty years, embraced the Christian religion.

If a veteran in the cause of infidelity thus closes his life and his works, does it not greatly behoove those who have been deluded and misled by his writings, seriously to look to themselves, and bring home this striking example to their hearts.

O then, while penitence can fate disarm,
While ling'ring justice yet withholds its arm;
While heavenly patience grants the precious time,
Let the lost sinner think him of his crime;
Immediate, to the seat of mercy fly,
Nor wait to-morrow—lest to-night he die. **Boyle.**

If men, so prodigal in scattering imprecations and curses upon all they are displeased at, would take time to consider what they are about before they disgorge them, they would certainly be ashamed of the folly of such a practice, because nobody is hurt by it but themselves; for curses, like arrows shot against Heaven, fall upon the heads of those that throw them out, but can never injure the persons or things levelled at. Again, what can be more foolish than for men, in common discourse, to make imprecations upon themselves, to confirm the truth of their assertions, which does no more than give a handle to their auditors' suspicion; for good men will be believed without them, and scorn to use them; and bad men can never gain credit, but disparage themselves, by so frequently venting them; because, by such bitter asseverations, they seem to suspect their own reputations. It is also for want of consideration, and too easy a compliance with a scandalous and vicious custom, that men of sense, in other matters, upon very slight, and sometimes no occasion in the world, expose themselves to the wrath of Heaven, by calling upon God to damn them if what they say be false, when, at the same time, they know there is no truth in it, and wish they may perish eternally, if they don't do what they never intend when they speak it.

What use of oaths, of promise, or of test,
Where men regard no God but interest?
What endless war would jealous nations tear,
If none above did witness what they swear?
Sad fate of unbelievers, and yet just,
Among themselves to find so little trust!
Were Scripture silent, Nature would proclaim,
Without a God, our falsehood and our shame. **Boyse.**

Amongst all the nations, there are none so barbarous and cruel, none so utterly lost to all the sentiments of humanity and civility, but have embraced and continued amongst them the notion of a Deity, or some being entitled to their adoration. This is a principle so deeply engraven in the very nature of man, that no time, nor change, nor chance, hath ever been able to obliterate it; so that, rather than have nothing to worship, men have often been contented to adore as gods, even the works of their own hands. And, indeed, herein their ignorance and folly is chiefly to be lamented, that they have still made choice of any thing, rather than the true God, to pay their homage and veneration. In the mean time, they shame some of us, in having been more zealous in their superstition, than we are in the true religion.

The Athenians consulted the oracle of Apollo, demanding what rites they should make use of in matters of their religion. The answer was, "The rites of their ancestors." Returning thither again, they said, "The manner of their forefathers had been often changed;" they, therefore, inquired, "what custom they should make choice of in so great a variety?" Apollo replied, "The best."

First to the gods thy humble homage pay;
The greatest this, and first of laws obey:
Perform thy vows, observe thy plighted troth,
And let religion bind thee to thy oath.
The heroes next demand thy just regard,
Renown'd on earth, and to the stars preferr'd,
To light, and endless life, their virtue's sure reward.
Due rites perform, and honours to the dead,
To every wise, to every pious shade.
With lowly duty to thy parents bow,
And grace and favour to thy kindred show:
For what concerns the rest of human kind,
Choose out the man to virtue best inclin'd;
Him to thy arms receive; him to thy bosom bind.

PYTHAGORAS.

The great Lord Burleigh used to say, "I will never trust any man not of sound religion; *for he that is false to God can never be true to man.*"

From the very respectful mention which I have so frequently made of religion, some of my readers may be charitable enough to conclude, that I am religious in a high degree. Would to God I were. From my soul I wish that my devotedness to religion had all my life been equal to the exalted opinion which I entertained of it. But, though like most of the human race, I have too often neglected my duty in this respect, yet can I say, before my God, that I look upon religion as the only *true glory* and *happiness* of man; and though worlds were thrown into the opposite scale, yet would I not relinquish the joys, imperfect as they are, which I derive from it. And from this circumstance I have often been led to think, that if I derive so much comfort from the little religion which I possess, how truly enviable, how superlatively happy must they be, whose whole lives are devoted to her service, and whose hearts are perpetually enjoying those sublime pleasures which her unclouded smiles can impart.

Arise, my soul, on wings seraphic rise,
And praise th' Almighty Sov'reign of the skies;
In whom alone essential glory shines,
Which not the heaven of heav'ns, nor boundless space
confines.
While this immortal spark of heavenly flame
Distends my breast, and animates my frame;
To thee my ardent praises shall be borne
On the first breeze that wakes the blushing morn:
The latest star shall hear the pleasing sound,
And nature in full choir shall join around.
When full of thee my soul excursive flies
Through air, earth, ocean, or thy regal skies;
From world to world new wanders still I find,
And all the Godhead flashes on my mind.
When wing'd with whirlwinds, vice shall take its flight
To the deep bosom of eternal night,
To thee my soul shall endless praises pay;
Join, men and angels, join th' exalted lay!—BLACKLOCK.

OF

FEVERS IN GENERAL.

UNDER this head are comprehended all fevers whatever, by which the human frame is affected; but, as they arise from a great variety of causes, and affect persons of very dissimilar constitutions, they must of course differ in their nature, and require a very distinct treatment.

Two very opposite states of the human body are supposed to give rise to fevers, and to form their great and fundamental distinctions. The one is called the phlogistic diathesis, or inflammatory disposition; wherein the heart is excited to rapid and strenuous exertions, manifested by great strength in the action of the vessels, while the blood itself exhibits a more florid hue and denser texture than usual.

In the other, the brain and nervous system are more directly affected, their energy seems impaired, the force of the heart and vessels is diminished, the blood is of a looser texture, and the fluids tend to desolution.

In the first state, when the inflammation originates from external causes, as wounds, contusions, or burns, the fever follows the local affection, and is in proportion to the degree of inflammation in the part affected. Such fevers are called *symptomatic.*

This is also the case in certain disorders of the lungs, and other viscera, which arise, not from external injuries, but from some vice in the part, which gradually brings on inflammation and fever. If the local information be removed, the fever is removed also; if it cannot be subdued, but increase gradually, destroying the organization of the part, the patient dies sometimes by the violence of the fever, and sometimes merely because an organ essential to life is destroyed.

Cold is found, by universal experience, to give a disposition to inflammatory disorders, and heat to those called putrid.* During the winter, and early in the spring, pleurisies, peripneumonies, quinsies, rheumatisms and inflammatory fevers prevail. Towards the end of summer, and particularly in autumn, fevers of a different nature, with dysenteries and putrid ulcerous sore throats, make their appearance.

Although it is true in general, that cold occasions a disposition to diseases of an inflammatory nature, and heat to those supposed putrescent, yet, persons who take violent exercise in sultry weather, or who accidentally fall asleep on the ground, exposed to the beams of the mid-day sun, are sometimes seized with fevers of a highly inflammatory and dangerous quality; the inflammation directly affecting the brain itself, or its membranes.

The time, in which intermmittents and remittents are most prevalent, is the end of summer and beginning of autumn, when heat and moisture combine to hasten the corruption of animal and vegetable substances, and fill the atmosphere with miasmata. These considerations reduce it next to a certainty, that something essentially connected with a marshy soil produces fever, and we can suppose nothing with so much probability, as the effluvia of stagnant water and corrupting animal and vegetable substances.

And if a sudden stoppage of perspiration, from the cold of autumn, after the body is relaxed by the heat of summer, be sufficient of itself to produce fever in dry and well ventilated countries where there is no reason to think that marsh miasmata prevail, we cannot be surprised to find them far more universal and more obstinate in low and marshy soils, where the first cause concurs with the second.

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* We continue this term in obedience to custom only. For it conveys a false view of what really happens in those fevers. Recent experiment and more accurate observation, have demonstrated, that putrefaction never takes place in a living body. The process which sometimes goes on in these malignant fevers, has some of the appearances of putrefaction; but it is, in fact, totally distinct.

A still more active source of fevers is the effluvia from the living human body, which, when long confined, becomes in the highest degree acrimonious, and gives rise to diseases the most dangerous and malignant. Whenever numbers of people are crowded together, the air must soon be deprived of its vital ingredient, by repeated respiration, hence this infectious matter will be formed, but with most rapidity in gaols, in hospitals, in the holds of ships, and in dirty dwellings, where its virulent tendency is hastened by nastiness, by unwholesome food, by desponding thoughts, or by the effluvia coming from bodies in a diseased state. It communicates its infection not only to those who approach the places in which it is generated, and the human body from which it flows, but also will remain long entangled in beds, blankets, and other articles, having been in contact with the patient's body, retaining its activity, and capable of infecting others at a considerable distance of time and place, if, unhappily, those contaminated materials are carried abroad. In this manner, one person who is not himself infected, may infect another: the first person in such cases, being less predisposed to the disease than the second.

Although the infection arising from the living human body, is not perceived to act at a great distance from its direct source; yet it seems most probable that it does not immediately lose its virulency; but after it is diffused in the atmosphere, continues in some degree to act in conjunction with the miasmata of marshes, with heat, obstructed perspiration, and the other causes of fever, and, according to the various proportions of those causes, combined with the circumstances of season, climate, and the constitution of the patient, the nature of the fever is determined.

INTERMITTENT,

OR AGUE AND FEVER.

SYMPTOMS. Is that fever which has, periodically, a clear intermission alternating with a return of its paroxysms. From the length of time between the fits, the species of the fever are distinguished and named. Thus, if the fit returns every day, it is termed a *quotidian!* if every third, a *tertian*; if every fourth, a *quartan*. The ague commences with weakness, frequent stretching, and yawnings, succeeded by sensations of cold in the back and extremities, which increase, until the limbs as well as the body become agitated with frequent and violent shivering. This continues for some time, during which a violent pain of the head and back, and a sensation resembling a stricture across the stomach, frequently distress the patient; and the sense of coldness is so great, that no endeavours to obtain warmth are of the least avail. These symptoms, subsiding by degrees, give way finally to warm flushings, which increase, until redness and heat, much greater than natural, are extended over the whole body; the patient at length burning with such extreme heat, as to be *now* as solicitous for the refreshing sensation of cold, as he was before anxious to mitigate its violence. After these systoms have existed for sometime, they gradually decline; the thirst goes off, the skin is relaxed, and a moisture breaks out on the head, which soon becomes general and profuse; then it slowly abates, till it entirely ceases.

This is the general progress of a regular paroxysm of a well formed intermittent; the patient is often left, apparently, free of disease, until the next attack.

CAUSES. The remote causes of ague or autumnal fever are, first, the effluvia which arises from marshes or moist grounds acted on by heat. Secondly, *cold*, especially when accompanied by moisture, which will necessarily act with more certainty, if a predisposition to the disease exists. This predisposition may be induced by living too sparingly, or on trashy food, excessive fatigue, impeded perspiration, preceding disease, indulgence in spirituous liquors, and in fine, by whatever tends to weaken the system and impoverish the blood. Hence the poor are more subject to the disease than the rich.

> For health consists of spirits and of blood,
> And these proceed from generous wine and food.
>
> POPE.

TREATMENT. In the cure of an ague, whether quotidian, tertian, or quartan, much the same plan may be followed. which is, as far as possible, to prevent the disease from being habitual; for the longer it continues, the more it weakens the constitution, and disposes the glandular viscera, as the liver, spleen, &c. to obstructions, and often prepares the habit of dropsies and other chronic diseases. So that although this disease be not very alarming in its appearance, yet, if injudiciously treated, or neglected, it often draws after it the most serious consequences; and hence merits particular attention.

The cure of the disease therefore calls for an emetic, or a dose of calomel and jalap, or salts, senna and manna, to free the bowels of their offending contents; and if the patient be of a full habit, with head-ache and flushed countenance, the pulse hard and quick, showing an inflammatory disposition, blood letting will be highly necessary.

Having by these means prepared the system, strengthening remedies should next be employed. Of these, the Peruvian bark is the most celebrated, and may be used with safety in the time of intermission, provided there exists no swelling or harkness of the viscera. In that event the bark must be withheld, until these symptoms are rendered milder by the administration of gentle laxatives, blisters, and diaphoretic medicines, as the cathartic and saline mixtures,* whose good effects will be greatly aided by diluent drinks and abstinence from solid food.

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* See Dispensatory.

As soon as the system is properly prepared for the use of the bark, it may then be given in such doses as the stomach will bear, and at such intervals, that six or eight doses may be taken during the intermission. Should it disagree with the patient in substance, give it in some other form, as the cold infusion, decoction or tincture. *See Dispensatory*

In the mean time, strict attention must be paid to the habit of body: for in vain shall we expect to cure intermittents, if the bowels be not kept open and the skin moist.

When, therefore, the Peruvian bark produces costiveness, five or six grains of rhubarb, or some mild purgative, should be added to each dose; and in case of cold phlegmatic habits, with a dry skin, the addition of ten or fifteen grains of Virginia snake-root is peculiarly proper.

In some constitutions the bark produces severe and copious purging. This debilitating effect may be prevented by adding five or six drops of laudanum to each dose. And when the patient is troubled with sourness on the stomach, flatulence and pain, take the bark in lime water, or conjoin with each dose, eight or ten grains of salt of tartar, or magnesia.

Notwithstanding every precaution, the bark will not sometimes remain on the stomach, and with children it is often difficult for them to swallow this medicine. With such patients it should be employed externally as directed below.†

Some patients are subject to profuse sweats, from debility. In such cases the bark should be united with a few grains of the rust of steel, or ten or fifteen drops of elixir vitriol, and taken in wine. But when these evacuations proceed, as they often do, from an inperfect cure, accompanied with great and intense heat, during their prevalence, we must immediately resort to the preparatory remedies, as blood-letting, cathartic and diaphoretic. Sometimes the fever will not yield to the bark, even when all the usual preparatory medicines have been employed. In such cases we may justly suspect the liver to be diseased, particularly if the countenance be either livid, or pale, or of a yellowish cast; and in that event, the use of the bark should be suspended until those obstructions be removed.

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† Take a piece of Holland, cut in form of a waistcoat, and for the lining, get humhums of an open texture. Between these cloaths, from three to six ounces of bark must be closely quilted, and then the waistcoat applied on the naked skin. Every two or three days, it will be necessary to rub the jacket between the hands. It is sometimes proper to unite snake-root with the bark, in proportion of one ounce of the former to four of the latter.

For this purpose one of the mercurial pills* should be given night and morning, until ptyalism, that is, a soreness of the mouth with increased spitting, is produced, which will generally succeed; and when it fails, the nitric acid diluted, and given in its usual doses* may be depended on. After a ptyalism is effected, recourse must be had to one or other of the strengthening remedies, to give tone to the system.

From the tenor of these observations it follows, that the Peruvian bark is not a remedy to be employed in every case of intermittent fevers, but that much caution is necessary in the *use* of it, lest it be turned into *abuse*. For unless the system be properly prepared by suitable remedies, the administration of bark, or any other tonic, is an error fraught with the most serious mischief.

The Peruvian bark being so costly and not always to be had pure, it must afford much pleasure to the benevolent, to learn that the *black oak* bark of America possesses the same virtues of the Peruvian, as has been verified by repeated experiments, not only in the cure of intermittents, but other diseases hitherto treated with the Peruvian bark alone. It may be taken in the same manner, only in rather larger doses. In substance it is most efficacious, and if well pulverised it will be found more palatable than the Peruvian bark, and not so apt to excite vomiting.

Another mode in which this remedy may be employed to great advantage, from its abundance in our country, is by bathing twice or thrice a day in a strong decoction of it; which to children, and patients whose stomacks will not retain medicine, will prove exceedingly beneficial. When the black oak bark is not convenient, the red oak bark, though less efficacious, should be substituted, as I have often witnessed the happiest effects accruing to debilitated persons bathing in a strong decoction of it, about lukewarm, particularly in the last stage of fevers. Hence this remedy well deserves the attention of the planter.

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*See Dispensatory.

Professor Barton assures us that he has employed the bark of the Spanish oak in gangrene, with the happiest effect, and that he considered it, in powder, equal to the best Peruvian bark. See OAK. *Materia Medica.*

The common dog-wood bark, of our country, is also an excellent substitute for Peruvian, particularly in the cure of intermittents; so is the bark of the wild cherry-tree, and of the lyriadendron tulipifera, or American poplar, all of which may be given in the same forms and doses, as the Peruvian bark. See *Materia Medica.*

The columbo root, an admirable corrector of bile, is a most useful medicine in this complaint, and will often be retained by the stomack, when the bark in every form has been rejected. It is likewise an excellent remedy, joined with steel, as in the form of the tonic powders or pills,* for patients disposed to be dropsical, or who have a swelling and hardness of the spleen, called *ague cake;* especially if a purge or two have been previously employed, and some mercurial action excited in the system, by one or two grains of calomel, taken every night and morning for a few weeks.

Another valuable medicine in the cure of agues, and which has frequently succeeded when the bark failed, is white vitriol. But like other tonic medicines, it requires that the stomach and bowels should be freed of their morbid contents, before any good effects can result from its use. Therefore, some evacuating medicine is always necessary; after which, one of the vitriolic pills* may be given every three or four hours during the intermission of fever, gradually repeating the dose, or increasing it, as the system becomes habituated to its action.

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* See Dispensatory.

Charcoal powder in doses, from a tea to a table spoonful given three or four times during the intermission, has often interrupted the expected paroxysm and cut short the disease.

A scruple of the spider's web, it has been said, in many instances hath proved successful, given an hour before the fit of an ague and an hour after it.

But among the remedies of intermittents none is more infallible than the solution of arsenic, which may be given with perfect safety to persons of every age, beginning with the smaller doses, and proportioning them to the age of the patient.

Stimulants administered before the fit, by inducing a salutary change in the system, have frequently overcome the disease. It is in this way that emetics are considered useful in the coming on of the fit, so is active exercise, and other stimulants. Cataplasms of mustard seed and garlic, or horse radish, applied to the wrists and ankles an hour or two previous to the unexpected fit, will excite a degree of inflammation so great as to increase the heat as well as the circulation, and have often succeeded.

I have frequently, in obstinate intermittents, prevented the recurrence of the fit, by giving a large dose of laudanum or æther about an hour before the expected paroxysm. But when an inflammatory disposition prevails in the system, this remedy should not be resorted to, as it may convert the intermittent into a continued fever.

An emetic given previous to the return, while the perspiration is supported by the volatile alkali or Dover's powder* in their usual doses, with warm drinks, have also succeeded in obstinate cases. It should be observed, however, that when we attempt to prevent the paroxysm of an intermittent by sweating, this mode of relief must be continued till the period of the paroxysm is at an end; or at least till the time when the sweating stage would have otherwise commenced.

Those means which excite terror, surprise and horror, by producing a train of new emotions will prevent the return of paroxysms. A man has been pushed into the water; fire has been cried; the most distressing tidings invented and communicated. All these remedies fill the mind with such dread as to counteract the impression of the cause; but in general they are dangerous, and when we wish to prevent the fit, we depend rather on tonics, the stimulants, and the sudorifics.

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* See Dispensatory.

Dr. Kellie, an ingenious surgeon of the British navy states, that many instances have occurred of the good effects of compression by tourniquets or bandages applied so as to obstruct the circulation in two of the extremities. The plan pursued by him was to apply the instrument on one thigh, and on one arm, of opposite sides, at the same time. In two minutes after the application of the tourniquets, the shaking and other symptoms of the cold stage entirely ceased, a mild hot stage was immediately induced, and the patient found himself quite relieved. After suffering the instruments to remain on for about fifteen minutes, they were removed, and the cold symptoms did not return. He further states, that, if the tourniquets be applied previous to the accession of the paroxysm, the cold stage will entirely be prevented; and that, where the cold stage of an ague is either thus shortened, or altogether prevented, the following hot stage will be rendered both milder and of shorter duration.

As agues are liable to recur, one excellent mean of prevention, as well as cure, is to wear flannel next to the skin, and to exchange the situation where the disease was contracted, for another, even though not of a healthier air. This alone has often effected a cure. In like manner a change of medicines is as necessary as a change of air, that the body may not become habituated to any one mode of treatment. Therefore, it ought to be remembered, that neither bark nor any other tonic medicine, should be continued longer than a fortnight at a time, but should be changed for another article whose virtues are nearly the same. After a week or two, the former may be resumed, in case the disease should prove obstinate; and to bring about the necessary changes in the constitution, larger doses should be given.

Regimen. As to regimen in the cold fit, very little more is necessary than warm camomile tea. In the hot fit, the drink may be barley water, mint or balm tea, lemonade, toast and water, or cold spring water, taken often, but in small quantities at a time. When the sweating begins, the drinks just enumerated may be enlivened with wine, and if the patient be able to take it, he may be allowed a little nourishment. During the intermission, the diet should be as nutritious as the patient's appetite and digestion will allow. Every thing that tends to keep up a gentle perspiration, and to give tone to the vessels is useful; hence moderate exercise is singularly proper, since nothing more conduces to these beneficial effects. The exercise should be of that kind to which the patient has been most accustomed; and taken in the open air, unless wet weather, or a damp situation forbid. But the utmost care should be taken, that exercise be not pushed to fatigue, which, by inducing debility, carries thousands, particularly foreigners, to untimely graves.

REMITTENT, OR BILIOUS FEVER.

Symptoms. In this fever there is a remission or abatement of its violence, but not a total cessation. Like other fevers it commences with a sense of coldness and shivering, accompanied by violent pains in the head and back, great dejection of spirits, sickness at the stomach, giddiness, loss of strength, and difficulty of breathing. The cold stage is succeeded by a considerable degree of heat, the pulse, which in the cold fit was small and quick, becomes full, but abates not of its quickness. The pain of the head and back increases, and the nausea is augmented, frequently terminating in copious vomitings of bile. These symptoms continuing, the skin which had hitherto been hot and dry, becomes moist. Soon after this, the symptoms abate, and sometimes cease entirely. The patient flatters himself with the hopes of health speedily returning; but, alas! these pleasing illusions are soon dissipated by another attack, which comes on with increased violence. And if the fever be not opposed by means early employed and sufficiently powerful, a constant delirium and restlessness take place; the discharges become very offensive, succeeded by twitchings of the tendons, profuse clammy sweats, and convulsions, which soon terminate in death.

CAUSES. Remittents are produced from the same causes which induce intermittents, but acting here in a more powerful manner. Like these, they are most prevalent in the months of August, September, and October, when heat and moisture combine to hasten the corruption of animal and vegetable substances, impregnate the air with noxious exhalations.

TREATMENT. In the cure of this fever, all our efforts should be made to bring the *remission* to a complete *intermission;* and this is to be effected by bleeding, cathartics, emetics and diluents, with such medicines as have a tendency to solicit the circulation of the fluids to the surface. Hence, on the commencement of the disease, bleeding will generally be found unnecessary, and should be often repeated, when there exists much pain in the head, with a hard and quick pulse. But to evacuate the first passages of their impure contents is always necessary; and this is best done with calomel and jalap, or salts, senna and manna, and when circumstances do not prohibit the use of emetics, they may also be employed. The extent to which these means are to be carried, can only be directed by the symptoms present, the habit of body, and other considerations. It will in many cases be proper to exhibit an emetic at the very first attack, but this may sometimes be forbidden, by great irritability of the stomach, or the appearance of inflammation. For frequently in diseases of the same origin, and in persons very nearly similar, with respect to age, sex, and temperament, one will frequently be accompanied with an inflammatory diathesis, whilst another will be more of the low, irritable species; and consequently the treatment must be varied, in proportion to the nature and violence of the discase. For among fevers, we see all the intermediate degrees and varieties, from common agues to those of the most violent and infectious kinds.

If the patent be of a strong plethoric constitution, with a hard and quick pulse, a deep seated pain in the eyes, a burning heat at the stomach, and flushed countenance, indicative of a strong inflammatory disposition, bleeding is absolutely necessary, and should be repeated every ten or twelve hours, or oftener, until the inflammatory symptoms subside.

The necessity of diligently evacuating the intestinal canal, must be obvious to every person. And it is not always by one or two brisk cathartics that this complaint is to be cured; but the operation must be continued until the whole of the bilious matter is evacuated, which may be known by the fæces changing their color, and putting on a natural appearance. When the irritating matter is thoroughly evacuated, mild laxatives, as the cathartic mixture* or castor oil, answer very well in the course of the disease to keep the body gently open; but in *desperate* cases calomel is most to be depended on. And if a ptyalism, or a slight salivation be excited by the calomel, the patient has no cause of alarm, but rather of joy, as this is a certain indication of recovery. How desirable then must it be in high stages of bilious fever, to have this effect produced as early as possible, by giving calomel, and rubbing in mercurial ointment, and dressing the blisters with the same.

Besides the aforesaid evacuants, glysters of warm soap-suds, or molasses and water, to which may be added a little vinegar, should be employed; as they are not only useful in removing from the larger intestines any offending matter present, but also in producing the good effects of fomentations.

Attention having been paid to the state of the bowels, which is always necessary, because of the constant disposition to accumulate bile, such medicines as tend to determine the fluids to the surface, are next to be regarded. Of this class are the diaphoretic drops, saline mixture, mindererus's spirit, febrifuge and Dover's powder.* Either of these may be exhibited in

*See Dispensatory.

their usual doses, every two or three hours, but in desperate cases the antimonial powders with calomel, or colomel alone, in small doses, are most to be relied on.

The warm bath admirably promotes insensible perspiration, by relaxing the skin, and taking off the stricture of the vessels; it consequetly should always, when practicable, be used, and if a bathing vessel cannot be procured, the extremities should be immersed in warm water at least once a day. The temperature of the bath, should be regulated by the feelings of the patient, and that which effects these most agreeably, should be preferred.

The cold affusion, by throwing cold water over the patient, or sponging the body with vinegar and water, has been attended with the best effects in warm climates, particularly if the application be made during the height of the paroxysm, when the head is generally affected.

After the inflammatory disposition has ceased, bark will add considerably to the cure; but if incautiously used at the outset, as it frequently is, will render every symtom more violent. However, if the patient suddenly becomes giddy, feeble and languid, the bark and wine must be had recourse to, and given freely on the remission; otherwise it will degenerate into a true nervous fever. But you must not mistake the debility which arises from oppression, requiring evacuants, for an exhausted state of the system; as in that case the use of tonics would be but little better than butchery.

Another medicine of great importance in this disease is the columbo root, which readily checks the vomiting, so frequently an attendant, and supports the patient's strength during the use of such medicines as are requisite to abate the febrile heat, and to carry off the bile.

After unloading the stomach and intestines, by two or three brisk purges, and diminishing the arterial action, by bleeding if requisite, a wine glass full of the infusion of columbo, or ten or fifteen grains of the powder may be given in a cup of mint tea, every two or three hours, either conjointly or alternately, with some gentle opening medicine, as rhubarb, magnesia, cream of tartar, or salts, to remove the redundant bile by keeping the bowels open.

Salts, though a nauseous medicine, may be rendered much less so by adding a little sugar, acidulated with lemon juice or sharp vinegar, as in the form of the cathartic mixture; and this is an excellent aperient, to be exhibited in small doses after the vitiated bile has been removed by calomel. A solution of salts in seltzer water, is a form still more agreeable.

During this general treatment, particular symptoms will require attention. The head-ache, for example, which so frequently accompanies this fever, is to be treated by applying to the head, cloths wrung out of cold water, or vinegar and water often repeated, until the malady is removed; besides which, a blister should be applied between the shoulders.

As to the vomiting, that depending on the peculiarities of habit, is to be variously treated. In some I have found the saline mixture, or infusion of columbo, answer very well; in others a spoonful or two of new milk, or equal parts of milk and lime water, given every hour, have had the happiest effects. A spoonful of sweet oil and molasses has proved beneficial, when vomiting is accompanied with a burning sensation at the pit of the stomach. To others, porter has afforded immediate relief. Never was there a more welcome or wonderful illustration of this, than in the case of Mrs. CARROLL, consort of DANIEL CARROLL, Esq. of Dudington.

It was my good fortune to attend this very amiable lady under a most violent attack of the bilious fever, with incessant vomiting. All the usual remedies were employed, without any good effect, which excited considerable alarm. She being in a state of pregnancy, and recollecting that nature sometimes furnished a cure beyond the rules of our art, I asked her if there were any article of drink to which her appetite particularly led her. "Yes, Sir, replied she, I have been craving to drink some good London porter for two days past, but I I would not mention it, being under the impression you would forbid my taking it." Learning that Dr. Thornton had some of that description, I immediately obtained a few bottles, and giving her a glass of it, diluted with a little water, it acted like a charm, and in a few weeks, I had the very great satisfaction of seeing my fair patient perfectly restored to health.

The warm bath, or local applications, such as flannels wrung out of a warm decoction of camomile flowers, or mint leaves stewed in spirits, or equal parts of sweet oil and laudanum rubbed on the stomach, have done much good; and when these fail, a large blister, or a cataplasm of mustard-seed, ought instantly to be applied over the region of this organ. When the stomach is in a very irritable state, the patient may frequently moisten his mouth and throat with cold water, but should drink as little as possible of any liquid.

Wakefulness, or inability to sleep, will often yield to the warm bath and blisters, and when they fail, a glass or two of porter, or the camphorated julep may be given, which also failing, a dose of laudanum is proper at bed-time, provided there exists no considerable inflammatory diathesis.

The pain in the bowels is mostly relieved by the warm bath, or a moderate bleeding and emollient injections, to which occasionally may be added twenty or thirty drops of laudanum. If these produce not the desired effect, and the fundament be scalled from the evacuations, give glisters of milk and lime water, composed of half a pint of each. These failing, inject every hour with cold water, and apply cloths wrung out of it, to the belly.

If a delirium come on in the first stage of the disease, it is to be treated by bleeding, purging, and the means prescribed above for violent headache; but should it occur at a later period, the pulse weak and irregular, with a great propensity to sleep, besides making cold applications to the head, the body should be frequently sponged with cold vinegar and water, or equal parts of vinegar and spirits. And should not the recollection in a few hours become more improved, and the pulse fuller and more uniform from this mode of treatment, it will be proper to apply a blister to the head, and sinapisms or blisters to the extremities; besides which, wine or some cordial must be allowed; and if there be a cold sweat, or coldness of the extremities, flannels wrung out of hot spirits, or spirits of camphor, ought to be applied often around the arms, legs and thighs.

On the decline of this fever, patients are sometimes troubled with night sweats, to relieve which, gentle exercise in fresh air, and the tonic powder or pills, (*See Dispensatory*) or bark and elixir vitriol will be proper.

The unusual fatality of this fever in Washington, as well as in many sections of our country, during the last summer and fall, was sufficient to create alarm, and to induce the benevolent to solicit, through the medium of public prints, information, relative to the most successful mode of treatment.

Although the practice I pursued last autumn, did not materially differ from that above recommended, yet, I am pursuaded a brief sketch of the improvement, accompanied with a few remarks, will be gratifying to most of my readers, particularly as I can state, an incontrovertible fact, not a patient who was governed by my prescriptions died during the sickly season; nor was there a case of the disease degenarating into the nervous, when early application was made. This extraordinary success was the more remarkable, as the number of my patients were very considerable, in so much, that it was impracticable to visit all of them daily, and many were attended principally by my students. Some of the indigent sick would doubtless have followed the fate of many of the paupers who died, had I not been sensible that exhibiting medicines, without paying due attention to reigmen, would not have the desired effect, and knowing this fact, I felt it my duty to those for whom I prescibed, to have them supplied with nourishment suitable to the case.

In most instances, the lancet was resorted to; and with some patients of robust constitutions, and inflammatory dispositions, it was used freely in the early stage of the disease.

Aperient medicines, being of the greatest importance, were frequently administered, and I found their salutary effects evidently increased by conjoining such as determined to the surface. Twenty grains of calomel, united with a grain of tartar emetic, or six or eight grains of ipecacuanha, were administered to an adult in the morning, and followed in a few hours by an ounce of epsom salts, or an infusion of salts, senna and manna, in broken doses. When a preference was given to medicine in the form of pills, I directed two of the aperient and diaphoretic pills [*See Dispensatory*] to be given every two hours, or two of them, to be taken at bed-time and the dose repeated every hour in the morning, until several copious evacuations were produced. With infants, calomel and ipecacuanha, in large doses, repeated occasionally, were often found sufficient.

It should be observed with respect to aperient medicines, though active in their operation, they do not weaken the patient as generally supposed, for they take away the cause of, at least apparent, weakness, and we have often found patients in fevers taking bark and stimulants to support them under this apparent debility, who after the operation of some laxative medicine, required neither. In the employment of this remedy, however, it is necessary to attend to the discharges. The nurses will often report frequent evacuations, and if examined, these may be found mucous and insufficient, or a watery fluid scarcely coloured. It is necessary that the stools should be truly feculent, and be continued while the discharges shall be dark and offensive. We therefore ought not to be governed by the number of evacuations; but by the effects, and the patient's feelings. If he be relieved after each stool, and the pulse becomes softer, the hand more moist, and the head less loaded, he need not be apprehensive, however violent the discharge. On the contrary, if the pulse become smaller and more frequent, the face sink, and faintness comes on, however little the discharge, it has been too much.

In some cases, emetics were employed with very good effects. They greatly contributed to relieve congestion in the liver, and were also useful in determining to the skin as well as carrying off the bile.

When purgatives were not requisite, the febrifuge mixture, diaphoretic drops, or antimonial powders were administered in their usual doses, every two hours, with the view of promoting a gentle diaphoresis, and to assist their effects, the patient being directed to take frequent small drinks of some tepid diluting liquor. Medicines of this class, by exciting perspiration, will be found to produce most beneficial effects, in those cases where the vital energy is not diminished; but when considerable debility is present, they frequently fail of having the desired effect, and act on the bowels, producing a dangerous diarrhæa. When the fever manifested a disposition to yield, the infusion of columbo or camomile was given, particularly, after the immediate operation of laxatives; which had the effect of correcting the bile, restoring the tone of the stomach, and supporting the patient's strength. And so soon as there was an intermission of fever, or symptoms of the disease assuming the typhoid state, the bark conjoined with Virginia snake-root, was given in such doses as the stomach would retain, which, together with the liberal use of porter and wine and nourishing diet, speedily arrested the disease.

In some instances the nitric acid diluted (*See Dispensatory*) was employed as a tonic with considerable advantage, particularly in delicate habits; or when there were symptoms indicating the liver to be diseased. With others again the solution of arsenic in the [illegible]al doses was administered with the most happy effects.

The warm bath, in every instance in which it was employed, produced beneficial effects; and when this luxury could not be procured, sponging the body and extremities with vinegar and water, or equal parts of vinegar and spirits, afforded great relief.

A few cases occurred of patients of robust constitutions, who not only neglected the proper remedies at the commencement, but aggravated the disease by taking stimulating drinks or active exercise, were at length attacked with great prostration of strength, accompanied with cold clammy sweats, coldness of extremities and impeded pulse. These symptoms indicated that considerable congestion had taken place, which would admit of no delay. I directed the warm bath, and when this could not be immediately obtained, friction and flannels wrung out of hot spirits, in which red pepper and mustard seed had been infused were applied to the extremities, and renewed as often as they became the least cold. So soon as the natural warmth was restored, blood-letting with calomel and other aperient medicines were resorted to; and also blisters over the region of the liver and extremities.—It will frequently occur in such cases, that the action of the heart is so overpowered in the first instance, that the blood merely trickles or rather oozes from the punctured vessel for a considerable time, being much darker and thicker than natural. Yet when a few ounces have been drawn it usually flows with freedom, and becomes finally of a brighter colour.

The deficiency or irregularity of heat on the surface is among the first symptoms that indicate congestive diseases, and if the skin can be restored every where to its natural warmth, a cure may be expected. It is evident the warm bath, frictions of the skin, blood-letting, calomel with purgatives, and blisters are the chief expedients to diminish congestion; but unless these be very early resorted to, they will not succeed, so rapidly does the stage of collapse supervene. Recovery very generally succeeds if natural warmth be speedly restored, and an universal perspiration excited. Upon this principle is to be explained the repeated success of the practice pursued by some practitioners in the plague; for immediately after persons were perceived to be affected, and consequently while there was yet no arterial excitement, they were subject to frictions by warm oil, in a close room, and over a brazier of hot coals, until a free perspiration took place.

Some patients in the course of the disease, were afflicted with acid eructations and heart burn, but were relieved by magnesia, the absorbent mixture or mucilage of gum arabic. These medicines were also useful in giving check to watery evacuations, which sometimes occurred on the exhibition of diaphoretic medicines; others again, on the decline of fever were troubled with pain, arising from flatulency, which required occasionally a little mint water, ginger tea, tincture of assafætida or spirits of lavender. This symptom, however, seldom came on when proper attention was paid to the discharge of the bowels.

In a few cases the hiccough became exceedingly troublesome, but was relieved by taking in turns the syrup of damsons, a lump of loaf sugar moistened with brandy, tincture of assafætida, or the camphorated mixture. When these failed, a cataplasm of mustard seed and vinegar applied over the region of the stomach generally succeeded.

Strangury was another spasmodic affection that required particular attention. Although the occurrence of this symptom was frequently the effects of blisters, (*See suppression of urine*) yet in some cases, it evidently was produced from a spasmodic irritation of the neck of the bladder. And when arising from this cause, the camphorated powders, the warm bath, or injections of warm camomile tea or infusion of hops, with laudanum, proved to be the best remedies.

Hemorrhages sometimes occurred, and when proceeded by head-ache, the pulse full and hard, indicating an inflammatory disposition, recourse was immediately had to blood-letting, followed by aperient and diaphoretic medicines; but when the discharge was attended with faintness, or happened at the conclusion of fever, the bark, elixir vitriol, or nitric acid, with cold drinks, were prescribed. Nitre in doses, of ten grains every hour or two, in a glass of cold water, as well as cold applications near the parts effected, were employed in both cases with evident advantage.

Longings for improper food and drink, with some patients, were exceedingly troublesome. On the decline of fever, when this symptom did not arise from the caprice of the moment, and the patient anxiously craved any particular food or drink, it was allowed not only with impunity, but considerable advantage.

Those cases in which I was consulted after the typhoid state of fever had come on, as manifested by a disturbed state of the brain and nervous system; showing itself in frequent sighings, wandering delirium, watchfulness or irregular and interrupted sleep ; characterized also in the more advanced stage of fever by a deranged state of the secretions and excretions, attended with a brown or black state of the tongue, and a cadaverous and offensive smell of the whole body, my attention was drawn to support the patient's strength by supplying him with nourishing diet, and giving stimulants both diffusable and permanent as recommended under the head of Nervous Fever.

Attention was also paid to the state of the bowels, and their offensive contents were evacuated daily, not by active purges which in this exhausted state of the system would destroy the patient, but by injections, and the occasional use of small doses of calcined magnesia alone, or conjoined with a few grains of rheubarb.

I was no less attentive in having the offensive materials, which were constantly excreted by the skin, removed by wiping the body and extremities twice a day with a cloth wetted with equal parts of vinegar and spirits. Care was also taken to have the sheets and linen of the patient frequently changed.

By perseverance in the means above stated, several persons, whom I was called to visit at the latter stage of the disease, recovered under the most unpromising circumstances. One case particularly deserves to be noticed, in order to show the impropriety of giving up a patient while there is life.

Mrs. Lund Washington lingered under this disease, upwards of six weeks, before application was made to me, and learning she had been given up by her physicians as a hopeless case, I was unwilling to attend; but from the earnest solicitude of her son, Mr. Peter Washington, I consented, provided the medical gentlemen who attended her would meet me. From some cause or other, neither of the physicians appeared at the hour appointed, and as there was no time to be lost, I took the liberty of prescribing in their absence. I found her in a state of excessive debility, and on examining her mouth, the tongue was covered with small white blisters, and gums with a foul sordes, accompanied with a cadaverous breath. Her bowels were in a very irritable state, and from the acuteness of pain she occasionally felt in them, caused her to scream out in a most lamentable manner. The state of her mouth readily induced me to ascribe the affection of her bowels to the swallowing of some putrid matter, and notwithstanding her extreme debilitated state, I deemed it necessary to direct a table spoonful of castor oil to be given, and its operation encouraged by injections of soap-suds. At the same time, her strength was supported by arrow-root, made palatable by a plentiful addition of wine and nutmeg. I directed, also, fresh charcoal powder to be given in doses of a spoonful every two or three hours, which produced most beneficial effects, as distressing symptoms soon yielded. On further examination, I found one side of the hip and lower part of the back in a gangrenous state. To arrest this, poultices of charcoal and bark were frequently applied, and so soon as a bathing vessel could be procured, and a strong decoction of red oak bark prepared, she was taken up in the sheet and bathed daily, from thirty to sixty minutes at a time. The number of blisters which had been applied, together with the large ulcers in her back, occasioned great pain in bathing, as well as in moving her from one sheet to another: but nowithstanding this, as her stomach would not retain a sufficient quantity of either bark or nitric acid, I had the bath continued about three weeks, which, together with the most nutritious diet and a plentiful use of wine, porter, and other stimulants, her general health was so far improved as to require little or no attention except to the ulcers. These, after the mortified parts had sloughed off, were very deep and extensive, exposing the bone, and requiring more attention than I was able to give. I therefore requested the surgical aid of Doctor Bailey Washington, and by the skill and attention of this gentleman, those ill-conditioned ulcers were healed in a few weeks. And I am happy to add, this most amiable lady is now restored to perfect health, to the exceedingly great joy of her affectionate family and numerous friends.

REGIMEN. With respect to regimen, the food and drink should be varied, and adapted to the taste of the patient. Nature, perhaps, generally takes care that no error shall be committed in that way, during the continuance of this disease. The patient is seldom persuaded to swallow any thing but liquids, during the prevalence of the fever, and if by accident he should have an inclination for something more solid, arrow root, sago, corn, or rice, gruel, mush, panado, custards, roasted apples, oranges, grapes, or other mild ripe fruits are all that should be allowed. To allay the thirst, barley or rice water, apple water, tamarind water, molasses and water, toast and water, or cold spring water, lemonade, raspberry or currant jelly, dissolved in water, mint or balm tea, acidulated with lamon juice, or other pleasant acids, may be given with great benefit, in frequent, but small quantities. These cooling drinks not only quench thirst, but also tend to excite perspiration.

Washing the face and hands of the patient from time to time, with vinegar and water, is always refreshing. The room should be somewhat darkened, and kept moderately cool, by a constant succession of fresh air; taking care, however, that the current of the wind is not immediately directed on the patient. The covering of the bed ought to be such as is found most comfortable, and the body kept, as nearly as possible, at rest. When the fever subsides, and the patient regains a desire for food, it will be best, in addition to the mild articles of diet already mentioned, to begin with puddings of various kinds, new-laid eggs, boiled soft, soups with vegetables, raw oysters, &c. resuming his diet gradually, as he finds his health return.

To keep up the tone of the system, a moderate use of genuine wine, or porter diluted, or brandy, or rum and water made weak, will be proper, at the same time paying due attention to air, cleanliness, and exercise.

Thus have I detailed, in the clearest manner, according to my experience, the best curative means of this the most prevalent and dangerous of all our Southern maladies. It is however much easier to prevent than cure diseases; and in order to the first, I will point out the general means which have been found conducive to this great end, and which constant experience has sanctioned.

PREVENTION.—To obviate the attack of summer and autumnal fevers, we should intercept their causes, or guard the habit as much as possible against their influence.

Therefore, on visiting a warm climate where any epidemic prevails, the first step is to prepare the system, as much as possible, for the unavoidable change it is about to undergo; and this preparation consists in living temperately, and taking *every other night, or oftener*, one or two grains of calomel, or chewing rhubarb, or drinking molasses and water, or using sulphur in such doses as to increase the discharge by the bowels, without debilitating the system. If there prevail a fulness of habit the loss of ten or twelve ounces of blood will also be a useful precaution. In the mean time, an imprudent exposure to the heat of the sun, or night air, should be strictly avoided.

Hard drinking is another cause of disease, which should be carefully guarded against in warm climates, particularly by seamen, who of all others are, perhaps, the most inattentive to health. The same admonition applies to their sleeping on deck during the night, and cold bathing when overheated, or in a state of intoxication, which, by suddenly checking the copious perspiration, seldom fails to bring on disease.

Cold moist air is a frequent cause of disease in warm climates; hence too much attention cannot be paid to comfortable fires, and suiting the dress to the changes of the weather.

Flannel worn next to the skin is one of the chief preservatives of health. Many people, indeed, clamour against it as tending to debilitate, because it creates perspiration. But this is altogether a silly prejudice; as mild perspiration, or a soft skin, so far from being hurtful, is the very habit of health. It preserves a proper medium of temperature, by absorbing the excessive moisture from the body during the day, and by preventing the effects of the cold damp air at night.

Cleanliness, both in our persons and apartments, is so essential to health, as to form a leading consideration in all our views to that first of blessings. The neglect of this not only renders a man loathsome and offensive to himself, but gives rise to many of our most inveterate and fatal diseases.

Among the various means used for the prevention of diseases, and for the preservation of health in general, none is perhaps more beneficial in warm climates, than *good wine* prudently used. It increases the circulation of the fluids, promotes both the secretions and excretions, and invigorates all the functions of the body. How much is it then to be lamented, that so valuable a cordial cannot always be got pure; from the avarice of selfish men, who at a low purchase tart or half-spoiled wines, and, to render them saleable, adulterate them with the most poisonous ingredients, so that they become the most insidious foes to health.

The common red wines are most generally adulterated, and artificially coloured, as manifested by a red sediment in the glass, as well as in the bottle. But the most pernicious of all adulterations of wine, is that of sugar of lead, or lead itself, which gives it a sweet taste: and therefore it ought to be remembered, that every wine of a sweetish taste, accompanied with astringent qualities, may justly be suspected to be adulterated with that noxious mineral. [*See Poison.*]

When genuine wine cannot be procured, good old spirits are of considerable service, especially when taken in small quantities, and much diluted. These pleasant preventatives, whether under the name of grog or toddy, must, in consequence of their gentle stimulant qualities, be peculiarly beneficial to persons whose lot is cast in low situations and moist air. But they should never forget, that no where is the great virtue of self-government more necessary than in their use. For, if indulged to excess, they seldom fail, whenever a pre-disposition to any particular disease lurks in the system, to rouse it to action.

In like manner, we must have regard to a proper regulation of diet, which consists in preserving the happy mean between long fasting on the one hand, and immoderate eating on the other. Vegetables are peculiarly adapted to warm climates, and consequently should constitute the chief part of our diet. Sweet oil, when pure, is perfectly wholesome; but rancid oil, butter, fat, or meat the least tainted, must be wholly rejected.

To those of weak habit and bad digestion, much benefit will result from a glass of the infusion of columbo, or camomile, or cold water, every morning, on an empty stomach.

Such are the general means for preserving health, and preventing diseases in a southern climate. The chief point is to avoid the exciting causes, and keep the bowels always moderately lax.

NERVOUS FEVER.

The fevers already described, and indeed all diseases attended with a considerable degree of morbid heat, affect in some measure the nervous system; but in this particular species, the nervous system is more immediately and more violently affected, than in any other. When a fever is once produced, from whatever cause, it seldom fails, by long continuance, to occasion all the symptoms which appear in the nervous or malignant fever.

This fever has been described by different authors under various names; the *typhus* or *nervous* fever, the *slow* fever, the *gaol* fever, the *hospital* fever, the *ship* fever, the *petechial* fever, the *putrid* fever, and the *malignant* fever.

The first appellation it receives from its attacking the brain and from the effects it produces on the nervous system. The second, from the slow and gradual manner in which it sometimes comes on. The third, fourth, and fifth, from their being apt to arise in gaols, hospitals, and ships, when numbers of men are crowded together, and when sufficient care is not taken to have such places well ventilated and cleansed. The sixth, from certain spots which sometimes appear on the skin of the patients, labouring under this disease. The seventh, from a putrid state, or tendency *supposed to take place in the fluids;* and the last, from the dangerous nature and malignity of the fever: but they are all one and the same disease, variously modified, according to the violence of the symptoms, and the different constitutions of the patients.

SYMPTOMS.—The symptoms are commonly more various in this, than in any other fever. It sometimes creeps on in such a slow, insiduous manner, that the patient will have suffered the disease to make considerable progress, before he thinks it necessary to use any remedies. On other occasions it comes on with a great degree of rapidity, and with many of the symptoms common to all fevers.

Thus, it commences with alternate sensations of heat and cold, a want of appetite, a nausea, and occasional vomiting. These are followed by some confusion of the head, a sense of weakness, dejection of spirits, tremor of the hands, and frequent sighing without knowing the cause. At this stage the pulse is irregular, sometimes a little quicker, at other times about the natural standard. In some a dull and heavy pain, with a sense of coldness, possesses the back part of the head; in others, a pain in the orbit of one eye.

These symptoms gradually increasing, the pulse becomes smaller, and at the same time quicker, while the arteries of the temples and neck beat with additional force. The patient is generally more restless towards night, the breathing is somewhat difficult, and very little refreshment is obtained, from his short and disturbed slumbers. This gradual increase of symptoms, with the peculiar pale, sunk countenance attending fever, will give the alarm, even when other nervous diseases with which the earlier symptoms have been confounded are present.

In the progress of the disease, the system is unequally affected; for sometimes head-ache, restlessness, and uneasiness prevail in a high degree, while at the same time the tongue is clean and moist; and at other times, while there is no head-ache, or restlessness, the tongue will be dry and foul, and profuse sweats will break out. This fever, moreover, is not only thus irregular, in affecting various parts of the body differently, but it is also irregular in its exacerbations; and these, instead of taking place in the evening, will arise often in the morning. Again, sometimes the fever is very violent for the first three or four days; it then diminishes for a time, and then perhaps increases again. After, or about the tenth day, the weakness increases considerably; the whole nervous system becomes affected with tremors and twitchings; the urine is commonly pale; the fingers are in constant motion; the tongue becomes dry, of a dark colour, and trembles when attempted to be put out; and sometimes the gums and lips are covered with a dark viscid substance. To these succeed stupor, cold clammy sweats, with a fœtid smell, hiccough, and twitching of the tendons, together with an involuntary discharge of the excrements.

In every malignant case, this fever tends fatally on or before the seventh day: but more frequently those who die, are carried off about the middle or towards the end of the second week. When the patient survives the twentieth day he usually recovers. When the fever terminates favorably before, or at the end of the second week, the crisis is generally obvious; but when that happens at a later period, particularly if after the third week, the favorable turn is less evident; and sometimes several days pass, during which the disease goes off so gradually, that the most experienced are in doubts whether it abates or not. At length, however, it becomes evident by a warm moisture on the skin, by the dark-coloured gluey substance which adheres to the gums and lips, growing less tenacious, and being more easily removed; by the stools regaining a natural colour; by the urine being made in greater quantity, and depositing a sediment; by a return of appetite, and by the pulse becoming slower than it was before the commencement of the disease. Deafness ensuing, tumours appearing behind the ears, a red rash, and an inflamed scab below the nose, or about the lips, are also considered favorable. The symptoms which point out the near approach of death, are a change of voice, a wild stare, a constant inclination to uncover the breast, purple or livid spots on the skin, laborious respiration, profuse evacuations by sweating or purging, much watchfulness, sinking of the pulse, great incoherency of ideas, muttering, picking at the bed-clothes, considerable dilatation of the pupil of the eyes, involuntary discharges by urine and stool, starting of the tendons, hiccough, and convulsions. If many of these symptoms occur, little expectation of recovery can be entertained.

CAUSES.—This fever is occasioned by impure air, and putrid animal and vegetable effluvia. We are therefore not surprised to find it often originate in gaols, ships, and dirty dwellings, where numbers are crowded together, and where it is not possible to have sufficient ventilation.

Though human contagion, and the effluvia arising from putrid animal and vegetable substances, are the most frequent and active causes of this disease, yet they cannot be considered as the only ones; for we sometimes meet with instances in a country neighborhood, of persons being seized with the disease in all its malignity; where it is not epidemic, nor can it be traced to any place where the human effluvia could be supposed to be confined in any uncommon degree.

Hence nastiness, a moist atmosphere, much fatigue, cold, depressing passions, scanty diet, excessive study, too free use of mercury, immoderate venery, profuse hemorrhage, or whatever weakens the nervous system, may be enumerated among the causes.

TREATMENT.—With regard to the cure, when the inflammatory symptoms appear to run very high, the early use of the lancet will be required. It should be observed, however, if blood-letting be employed in all the various forms of typhus, without due regard to the period of the disease, the quantity of the blood drawn, the age, habit and constitution of the patient, it will often be followed by fatal consequences. On the contrary, if it be cautiously used in the beginning of the inflammatory typhus, it will be of the greatest utility, as it will render the other means more prompt and effectual, and thereby facilitate the cure.

When the lancet is resorted to, the blood should be taken away in small quantity, and from a small orifice. And as the rising of the pulse, under bleeding, is a certain indication of its propriety, so its sinking is as certain an indication of its impropriety; hence we have a criterion to guide us in the operation. Towards the close of most acute fevers of severity, there is some tendency to a change in the constitution of the fluids; and this may occur so soon as the second or third day, in the most malignant cases of typhus. The blood, when drawn in this state, loses its florid colour, and as it flows from the arm, exhibits a dirty, dark appearance, sometimes of a muddy blue, and sometimes of a deep black. It does not coagulate, but continues in a dissolved state in the vessel, which induced the ancients to call it putrid. It is unquestionably very unfavorable, and indicates that depletion is improper.

In general it will be safest to resort to the evacuation of the alimentary canal; therefore, on the first appearance of the symptoms, twenty or thirty grains of ipecacuanha, or four or five grains of tartar emetic, may be dissolved in a pint or more of weak camomile tea; of which the patient may drink a gill every fifteen or twenty minutes, until it excites vomiting, which ought to be assisted by drinking freely of warm water: or should any costiveness prevail, give a dose of calomel alone, or conjoined with ipecacuanha, and in a few hours afterwards, some rhubarb, epsom salts, or infusion of salts, senna and manna, in broken doses to evacuate the bowels of their morbid contents. Through the whole course of the disease, the bowels must be kept in a soluble state, either by some of the above medicines or acid laxatives, as cream tartar and tamarinds, by fruits, or by clysters. Two or three stools daily may be safely borne, though if so great an evacuation should appear to debilitate, even this number should be curtailed. However, the patient should in no case be more than two days without a stool, for a great deal of feculent matter is produced in fever, although little food is taken, and costiveness is apt to induce an increase of heat and affection of the head as delirium, &c. In administering purgatives, care must be taken not to employ them in such doses as would operate very copiously, as great debility might thereby be produced. So long as the alvine evacuations continue of a dark colour or unnatual appearance, calomel should be given not only as an aperient, but also with a view of producing ptyalism. The alterative operation of this medicine, in the early stage of the disease, is a circumstance highly to be desired, as it equalizes the circulation, and diminishes visceral congestions. In typhus proceeding from contagion, and of a malignant nature, very few hours should be lost in these preparatory steps; for the disease often hastens with rapidity, and the worst symptoms sometimes occur, so early as the fifth day.

In the early period of the simple typhus giving an emetic, and followed the next day by some active purgative medicine, have frequently cut short the fever at once; and when this desirable effect has not been produced, they have hardly ever failed to shorten its duration, and to lessen its danger.

Although medicines, which might excite profuse sweating, would be highly improper in this fever, yet those possessed of a mild, diaphoretic power, as Dover's powders, the camphorated powders or mixture, [*See Dispensatory*] the spirits of nitre, or infusion of Virginia snake root, may be occasionally employed with advantage.

The saline mixture given in a state of effervescence, every two hours, readily abates thirst, and removes the increased irritability of the system. In like manner, a table spoonful of yeast, given every three or four hours, affords much relief, and has alone, often proved an effectual remedy.

The Rev. Edward Cartwright, having read of the power of fixed air in preserving meat from putrefying, was induced to make trial of yeast on a boy of fourteen years of age, who had been ill several days of a putrid fever, for which bark and wine had been exhibited without any apparent advantage, and where there was but little hope of recovery. He directed two table spoonfuls of yeast to be taken every three hours, which having been complied with, the boy found almost immediate relief, and recovered very quickly. Mr. Cartwright reports, that he gave the same remedy to above fifty patients in this fever, without losing one.

Whatever may be the mode of action of yeast in typhus, the fact appears to be indisputable, that fixed air takes off that extreme debility of the stomach so conspicuously marked in disorders of this nature; and in proportion as that subsides, the pulse rises, becomes slower and fuller, the burning heat on the skin disappears, and a truce is gained for the reception of nourishing supplies. The most agreeable mode of administering yeast, is to add two table spoonfuls of it to a quart of beer or mild porter, of which a wine glassful may be taken every hour or two.

According to the practice of Drs. Thomas, Currie, and Jackson, as well as other eminent practitioners, the affusion of cold water is one of the most powerful and efficacious means which we can make use of in typhus fever. Its effects will be more salutary, in proportion as it is early adopted, i. e. during the first stage of the disease. Such being an indisputable fact, established upon the firmest basis, we ought always to employ it, very soon after we have evacuated the contents of the alimentary canal. In the early stage of the disease, cold water may be poured in considerable quantity from a height, or dash forcibly from a pail on the patient. But aspersion or ablution of the body, by means of a sponge, will be more eligible and safe in the advanced periods. The effects produced by both modes are grateful and refreshing to the patient, and they usually bring about an abatement of fever, followed by more or less of a diaphoresis, and this again by a refreshing sleep.

Dr. Currie states, that the cold affusion may be used at any time of the day when there is no sense of chilness present; when the heat is steadily above what is natural; and when there is no general or profuse perspiration. During the cold stage of the paroxysm of fever, while there is any considerable sense of chilness present, or where the body is under profuse sensible perspiration, this remedy ought never to be employed, as by so doing we might extinguish life. In the advanced stage of fever, when the heat is reduced, and the debility great, some cordial, such as wine warmed, with an addition of spice, or even brandy, should be given immediately after it.

When recourse is had to this remedy, every arrangement should be made for the affusion before the patient is moved at all, and fatigue as well as disgust should be avoided as much as possible. In those cases where the delicacy of the system, or the apprehensions of the patient or of the by-standers, may prevent cold affusion from being employed, we may substitute tepid affusion for the more powerful remedy, or we may recommend either ablution or aspersion. The tepid affusion, the water being lukewarm, or from 87 to 97 degrees of Fahrenheit; produces a cooling effect equal to that of cold affusion, partly in consequence of a more speedy evaporation, and partly because so great a glow or reaction does not succeed. The important object of diminishing heat, therefore, may be obtained with great certainty by the repeated employment of the tepid affusion, suffering the surface of the body to be exposed in the interval to the external air. A diminished frequency of the pulse, and respiration, and a tendency to repose and sleep immediately ensue, though its effects are not so permanent as those of the cold affusion.

Doctor Currie reports, that a putrid fever having made its appearance in a regiment quartered in Liverpool, he had the men drawn up and examined, seventeen of whom were found with symptoms of it upon them—these he subjected to the cold affusion once, and sometimes twice a day. In fifteen of this number, the contagion was extinguished, and in the remaining two, the fever went through its course. The healthy part of the regiment bathed in the sea, daily, and by these means, he effectually destroyed the contagion. He further relates, that of thirty-two who went through the disease, by its being too confirmed to be removed at the time of his first seeing them, only two died; and with these, recourse was not had to the cold affusion.

The same remedy has likewise been successfully employed by Dr. Currie, and many others in the more advanced stage of the fever, so as seldom to fail of procuring a safe termination. He relates the case of a soldier who was in the ninth day of the disease when he first saw him; his pulse was 100 and feeble, his heat was 104, his thirst very great, his tongue foul and black, his mind much confused, and at times he was delirious, and petechiæ were dispersed over his whole body. The mode of treatment was as follows: his strength was directed to be supported by administering a bottle of wine a day, with an equal quantity of gruel; every night he took an opiate draught, and his body was kept open by laxative clysters, and when these failed, by a few grains of calomel. A bucket-full of salt water was directed to be thrown over him immediately, which was to be repeated according to circumstances.

The effect was, that in a few minutes after the affusion, the heat lessened to 98, the pulse moderated to 96, and his mind became more calm and collected. Two hours afterwards he had relapsed nearly into his former state, but the night was passed with greater tranquility. The whole of this practice was continued with nearly the same result, until the twelfth day of the disease, the affusion having been performed in the evening, and occasionally at noon. The fever continued its usual period; but on the twelfth day, the heat having sunk to its natural standard, the cold affusion was thenceforth omitted, and instead of it, the body was sponged all over* once or twice a day with vinegar.

A memorable instance of the good effects of cold affusion came under my immediate knowledge some years ago, says Dr. Thomas, whilst I practiced in the West-Indies. A professional gentleman of my acquaintance, residing in the island of Nevis, was attacked with this fever; and it proceeded with such violence, that in a few days petechiæ appeared on different parts of his body, and a hemorrhage of blood issued from his nostrils, mouth, and other places. Under these unfavorable circumstances he was freely exposed to the open air, and one or two buckets of cold water were thrown over him; he was then wiped perfectly dry, and replaced in his bed; which plan of proceeding was repeated twice and sometimes thrice a day. By means of this application, the administration of an opiate at night, and a liberal allowance of wine, his life was preserved to the great, but pleasing astonishment of all his friends.

The affusion of cold water on the surface of the body, is considered, by Dr. Jackson, as a power which makes a strong and general impression on the system, and which arrests the disease, or changes its condition in virtue of that impression; but not by subtracting increased heat, as supposed by Dr. Currie. Indeed, the good effects of the remedy in question, cannot, we think, be wholly owing to the mere subtraction of heat; for it has been used with great advantage in many cases of fever, where there has been no perceptible increase of temperature, and where, by affusion, ablution, or aspersion with cold water, the disease has been cut short abruptly, as well as in those where it had risen to a high point. Therefore we may safely infer, that cold affusion, or the suddenly pouring cold water over the whole surface of the body, operates as a powerful stimulant, although its effects probably are of short duration, unless frequently repeated; they are produced by the suddenness of the application affecting the nervous energy, and by the shock rousing the dormant susceptibility, so as to induce a new action, as it were, of the nervous system, removing spasmodic contraction of the extreme vessels on the surface, carrying off a large portion of morbid heat by general evaporation, and the remaininder by insensible perspiration; thence restoring the healthy action of the exhalents and capillaries.

As the danger of this fever is in proportion to the debility, the great point is to support the patient's strength and spirits by a liberal use of tonics and cordials, which should be early employed. At the same time, a nourishing diet should be used, suited to the taste of the patient, and the most rigid attention paid to cleanliness, and to a free circulation of pure air. In having recourse to these means, with a view of supporting the vital energy, we must take care to prevent the feculent matter from being confined, by occasionally administering laxatives or clysters.

As we have no other vegetable tonic of equal efficacy with the Peruvian bark in this variety of fever, it should be given in frequent and as large doses as the stomach will retain. And its beneficial effects will be increased by conjoining it with the snake-root in proportion of one ounce of the former to two drachms of the latter, or by uniting to each ounce a scruple of camphor. When this valuable medicine is rejected in its various forms, as it frequently is, we should not dispair of finding a succedanium so long as our country abounds with the red and black oak. From my own observations in practice, frequent bathing in a strong decoction of the bark of either will produce the same salutary effects, as could possibly be expected from a free exhibition of the Peruvian bark internally. (*See Materia Medica—and also Bilious Fever.*)

The other tonics of most efficacy in typhus are the mineral acids. I have myself employed the nitric acid diluted (*See Dispensatory.*) in doses of a wine glassful every two or three hours, with very beneficial effects. Dr. Thomas speaks highly of the muriatic acid in all febrile diseases of malignant nature. In all such cases he says it will be found a powerful and efficacious medicine. His usual plan of administering it is nearly as follows. Having relieved the stomach by a gentle emetic, where nausea prevails, cleared the bowels of their feculent contents by a moderate dose of calomel and jalap or rhubarb, and subjected the patient to cold affusion when the circumstances already noticed have admitted of it, he gave to adults ten or twelve drops of the muriatic acid, guarded with five drops of laudanum, in an infusion of columbo, Virginia snake-root, or bark, and repeated the dose every four hours, gradually increasing the quantity to eighteen or tweenty drops, or more. He says, from using it in this manner, his practice has been attended with the most decided success. Dr. Thatcher also bears testimony in favour of this remedy. He states a case of putrid fever, attended with extreme danger, in which he administered the muriatic acid in a strong decoction of thoroughwort, with a few drops of laudanum. When it had been taken freely for about twelve hours, a profuse sweat ensued, of a yellowish colour, and nauseous smell; a favourable change immediately appeared, and the recovery was rapid.

Dr. Armstong states, that he has employed the muriatic acid in typhus, with beneficial effects, when it did not excite griping pains or diarrhæa. He has prescribed as much as two drachms of it, largely diluted with water, in twenty-four hours, so as to make it a sort of common drink.

Another tonic of considerable efficacy in fevers of a malignant nature, is the solution of arsenic. Dr. Ferrier found, in the last stage of typhus, when neither bark, wine, or brandy, cold bathing, or even occasional doses of cayenne pepper, had the effect of rousing the powers of life, or of lessening the thick crust which covered the tongue, that most singular advantages were obtained by giving the arsenical solutions. As soon as the febrile paroxysms are stopped, he considers it best to suspend the use of the arsenical solutions, and to support the patient with bark and different cordials. Dr. Thomas corroborates the efficacy of this medicine, in stating a severe case of typhus which fell under his care; the patient having suffered two relapses of the fever, and her life despaired of, when he was induced to make use of this mineral solution. Its effects exceeded his expectations, for the woman's life was apparently preserved by it. The solution of arsenic may be given in its usual doses every three or four hours.

Of every other medicine, cordials only would supersede the bark; and with these putrid fever is sometimes successfully conducted, when the bark is disagreeable or rejected. The chief is *wine*, which it is necessary often to give in large quantities. It must be recollected, however, that wine is an indirect stimulant, followed by a narcotic effect; so that when we begin, we must continue its use until nature can exert herself. In this case, and in all instances of putrefaction, whether general or local, our remedies are intended to supply the powers of nature. When these are roused, our exertions may be safely remitted; and we find that this effect is produced in general fever, when the pulse becomes fuller and softer, the eye more quick, the skin more clear, and the tongue more clean and moist; in partial gangrenes by a beginning separation of the mortified part.

It is impossible to fix the precise quantity of wine that ought to be given, as it must be varied according to the nature of the existing symptoms, the age, constitution, and previous habits of the patient. Madeira is unquestionably preferable to every other wine, but unfortunately, it is seldom to be procured genuine from the retail stores; consequently, it is better to obtain the Sicily, dry Sherry, Lisbon, or Teneriffe wine. These should not only be given at first diluted, but in small portions at a time. A mixture of wine and milk, in proportion of one part of the former to three or four of the latter, constitutes an excellent drink, as well as diet, in the advanced stage of typhus. When the stronger wines excite too much, the weaker, such as claret, may be tried; and if these should not answer, small repeated draughts of brisk ale or porter, may be given, and in many cases with more salutary effects than wine; either being calculated, in the last stage of typhus, to give that degree of vigour to the system, requisite to remove those partial congestions which often exist at that period in combination with general debility. Good cider is another substitute for wine; and brandy, rum, or whiskey, may, though with less decided success, supply the place of either.

Although stimulants are indispensably necessary, where there is a loss of tone in the vascular system, and real debility existing, yet to employ them inconsiderately, will often be attended with bad consequences.

Dr. Armstrong observes, that it would be quite as rational to give a half intoxicated man a tolerably free allowance of ardent spirits, with a view to make him sober again, as to attempt to restore, while the stage of excitement continues, a typhus patient, by the administration of wine; for he may be said to be, in some degree, intoxicated by the stimulous of the fever, and he will therefore be more affected by every glass of cordial that is administered. Dr. Potter, also, judiciously remarks, that the prescribing diffusable stimuli in every fever that has the name of typhus attached to it, is one of the greatest absurdities and strongest infatuations, that infests the practice of physic. There in no fever that will bear, much less require, such agents to remove it in its first stage.

It should be remembered, that when strong stimulants are incautiously administered, they have a powerful tendency to produce inflammation or congestion in the visceral organs, and thus to render the chance of recovery, at the best, very doubful. Therefore it is important in administering wine, or any other stimulant, to give it at first sparingly, and notice its effects carefully. If on trial the patient sleeps well, breathes easily, and feels a universal glow, we may safely go on with it; but if, on the contrary, it produces restlessness, difficulty of breathing, the tongue becoming drier, and the pulse more tense and rapid, its further use should be omitted until the inflammatory diathesis is removed. In habitual drunkards, the stage of collapse sometimes rapidly supervenes, and they should always have an earlier and a more liberal allowance of stimulous, than those who have lived in an abstemious manner, otherwise they will sink under the evacuations which may be indispensably necessary to remove the disordered condition of certain organs.

By this general plan, a cure will, for the most part, be effected; but in the progress of the disease, particular morbid symptoms will require especial treatment. Thus affections of the head, with stupor and delirium, will sometimes be relieved by frequently washing the temples with cold vinegar and water; and occasionally bathing the feet in warm water. But if these affections, notwithstanding, should continue, it will be necessary to shave the whole of the head, and apply cloths wrung out of cold vinegar and water, which should be frequently renewed; and if the delirium be accompanied with wildness of the eyes, a blister must be applied to the head.

Where there prevails any unusual coldness in the lower extremities, recourse must immediately be had to the warm bath, or to some warm stimulating applications externally, as well as the exhibition of stimulants internally, in order to restore the circulation to the surface. The efficacy of the bath will be greatly increased in such cases by having it strongly impregnated with salt, and the patient should remain in it, till his skin become warm, and on being removed to his bed, he should be well rubbed all over with hot flannels, and bottles of hot water, or heated bricks with vinegar poured upon them and enveloped in flannel applied to his feet, legs, and under the armpits. When a bathing vessel cannot be procured, use, as an embrocation, a strong solution of table salt, in heated spirits, which admirably recalls the languishing circulation to the surface.

A depression of the animal heat will sometimes come on in the collapse of typhus without any apparent cause. The pulse becomes very small, and the extremities very cold; and if some warm cordial, as mulled wine, hot toddy, or ginger tea, sweetened, with the addition of a little spirits, be not immediately administered internally, and warm stimulating applications applied externally, death will soon follow. Blisters, as well as sinapisms in such cases, have frequently been employed, and are serviceable by their stimulating effects; but they should not be continued on long at a time; and when a blister is raised in this disease, the sore should be frequently washed with an infusion of red oak bark; and nothing ought to be applied to the part which may tend to increase the discharge; for that, by debilitating the system, would prove injurious.

If nausea or vomiting continue, apply flannels, wrung out of hot spirits, in which red pepper or mustard seed has been steeped, to the stomach and lower extremities. These failing, give the saline or camphorated mixture, and apply a poultice of mint leaves for cloths moistened with laudanum and camphorated spirits to the stomach, and cataplasms of mustard seed and vinegar to the feet.

A slight purging, attended with a gentle moisture of the skin, not unfrequently arises towards the close of this fever, and now and then assists in carrying it off: but where it does not seem to produce a critical effect, it ought to be stopped speedily as possible by giving charcoal or the absorbent mixture, with a few drops of laudanum, or by clysters of starch, or the decoction of red oak bark, containing in each a teaspoonful of laudanum. When the purging is not considerable, wine or brandy mulled up with spice, or a free use of arrow root, with plenty of nutmeg, or rice milk with cinnamon boiled in it, is often sufficient.

If purging be produced from swallowing putrid matter, give a small dose of castor oil or rhubarb and magnesia, and afterwards charcoal. [*See Bilious Fever.*] In the stage of excitement, a diarrhœa accompanied with bloody stools sometimes occurs, indicative of either a preternatural fulness of the liver, or inflammation of the mucous membrane of the bowels. In this case we must resort to the warm bath, mucilageous drinks, and evacuants, as calomel, and castor oil.

It not unfrequently occurs, that patients, kept in very close apartments, have, on the approach of the last stage, black, bloody stools, without any offensive odour. About the same time petechial or purple spots begin to show themselves upon the extremities, which at first are only few in number, and appear as if drops of black ink had been allowed to dry here and there upon the skin: but becoming numerous, they soon spread over different parts of the body, and are generally accompanied by discharges of blood from the nostrils, mouth, bladder or bowels. When these symptoms are accompanied with a weak, quick, thready pulse, we may be sure the stage of collapse is at hand. In such cases, recourse must be had to the most powerful antiseptics, such as vegetable and mineral acids, yeast, liquors in a state of fermentation, wine and bark, and aromatics with very small doses of laudanum. At this momentous crisis, bathing the patient frequently in spirits, or in a bath composed of equal parts of whiskey and decoction of red oak bark, with a free admission of air, will not fail to produce good effects. In addition to this mode of treatment, when the hemorrhage proceeds from the nose, mouth or ears, it is advisable to make use of local applications, as lints dipped in a solution of alum, or blue vitriol, or some powerful styptic.

Miliary eruptions sometimes appear as the crisis to this fever, and ought, therefore, on no account to be checked by any kind of evacuations; nor should the patient, on the contrary, be kept too warm with a view of forcing them out.

Profuse sweats are to be obviated by sponging the body and extremities daily with equal parts of vinegar and spirits; by being lightly covered with bed clothes; by admitting fresh air freely into the chamber, and by giving whatever he drinks, cool, and agreeably acidulated with lemon juice or elixir vitriol.

If hiccoughs or starting of the tendons supervene, it will be necessary to give camphor and volatile sal-ammoniac in large doses, with the warmest cordials.

In cases of retention of urine, the treatment must be varied according to circumstances. In some instances the kidneys become inflamed, and in this state very little urine is secreted, until the healthy action of the vessels be restored by administering calomel and mild purgatives, swallowing freely of demulcent drinks, and, occasionally, using the warm bath. In the low typhus, the kidneys are rendered incapable of performing their functions from a loss of tone, and in such cases stimulants and tonics, with cold applications over the region of the bladder, as cloths wrung out of spirits, or equal parts of vinegar and spirits, are the best remedies. When the bladder is over-distended, or inflamed, indicated by acute pain and some tumor, the catheter is indispensably necessary to draw off the water. In febrile complaints, it will be found that, where a small quantity of urine is secreted, the sediment is proportionably copious; and, on the contrary, where a large quantity is secreted, the sediment is proportionably scanty. If attention be paid to keeping the bowels open from the commencement of fever, a suppression of urine will hardly ever take place.

In an advanced stage of the disease, it sometimes happens, that in addition to a profuse secretion of vicid saliva, little white ulcers, or apthæ, appear in the mouth. In such cases the detergent gargle [*See Dispensatory*] should be frequently employed, and the mouth occasionally washed with a solution of alum in water, an ounce of the former to a pint of the latter, and this will quickly take away the stench that arises from them. The viscid phlegm, which collects about the tongue and teeth, may be wiped away with flannel, dipped in vinegar, or salt and water, or after washing the mouth with sharp vinegar or some austere acid, it may be scraped off with a knife, or a piece of whale-bone bent.

From the want of sleep, much rambling and low delirium sometimes occur, which will require an opiate at early bed time. The most advisable way of giving it, to prevent any deleterious effects, is to conjoin laudanum, with the camphorated mixture, or the opium with a few grains of camphor, volatile sal-ammoniac, or some mild diaphoretic, as Dover's powder. Opiates are more admissible in this fever than in any other, and, as it is of the utmost consequence to procure rest, they should, with this view, be employed every evening, where there is no great delirium. In all fevers where we wish to procure sleep, and cannot have recourse to opium, on account of delirium being present, a pillow of hops laid under the patient's head, has been used with singular advantage.

In case of watchfulness, the camphorated julep, or porter and water, will generally succeed. When, however, these means fail, and there is great prostration of strength, followed by stupor, and a train of the most distressing symptoms, wine should be exhibited in large quantities, and it will be found that the patient will show a relish for this valuable cordial, after refusing medicines and every kind of nourishment in a solid form. At first it is better relished mulled; but afterwards the patient will take it freely in its pure state, and in the quantity of one or two quarts a day, without intoxication. The quantity of wine should be regulated by the degree of debility present, the age of the patient, and the effects produced by it.

The proper rule to be observed in the use of wine, is to give it until the pulse fills, the delirium abates, and a greater degree of warmth returns to the extremities. And upon the smallest appearance of the stupor returning, the pulse quickening, and sinking, for they usually go together, the wine must be resumed, and continued in that quantity which is found sufficient to keep up the pulse, and ward off the other bad symptoms.

When wine cannot be had, rum or brandy diluted with milk or water sweetened, will answer; and with some patients is better relished. The friends of the sick should never be disheartened too soon, for here, if any where, we may say, "while there is life, there is hope." And I can truly aver, that I have often seen the patient raised, as it were, from the dead, by the determined use of generous wine alone, especially old Madeira.

As soon as the patient be able to take nourishment, such as panado, arrow-root, &c. the quantity of wine must be gradually diminished. For although it be absolutely necessary to take it so liberally, during the continuance of this fever, yet, as soon as that shall have left the patient, much caution becomes necessary in the use of it; since the third part of what formerly had proved a salutary cordial and restorative, would in this state of convalescence, occasion a dangerous intoxication.

It sometimes happens at the close of tyhus that the patient is affected with a slight degree of mania or temporary alienation of the mind. In such a case it will be necessary to support the patient with a generous, nutritive diet; to keep him as quiet as possible; and to give him tonic medicines, as bark and elixir vitriol, nitric acid or tincture, or rust of steel, carefully avoiding evacuations.

If the appetite does not readily return on the cessation of the fever, the mineral acids, or stomachic bitters, will be proper. Bathing daily in a strong decoction of red or black oak bark, will be found an excellent remedy in removing the irritability and weakness which are left behind; and when there is no visceral obstruction, the shower bath will be attended with beneficial effects.

We repeat, it is of the utmost importance throughout the whole course of the disease, that the most rigid attention be paid to cleanliness, and the communication with the external air kept up in different degrees day and night, according to the state of the atmosphere. None but those whose business it is to attend the sick, ought to be allowed to go near the patient, except when there is little or no affection of the head. In such cases the presence of a friend may soothe the mind and help to dispel gloomy ideas; by comforting the patient with the hope of a speedy recovery, and diverting his thoughts from that anxiety and dread of danger which invariably attends this complaint.

Regimen. In addition to the mild articles of diet enumerated in the bilious fever, bread and milk, with a little water, sugar, and the pulp of a roasted apple, form a most grateful and nutritious food; and for the sake of variety, cider, porter, or any other drink which the patient covets, should always be allowed.

It has been observed, that this fever often originates from corrupted air, and of course must be aggravated by it; great care should therefore be taken, to prevent the air from stagnating in the patient's chamber. When that is small, and cannot be well ventilated, the patient should be carried into the open air, and allowed to sit there two or three hours every day in mild weather. When this cannot be conveniently done, every means in our power to ventilate the room should be employed. Strong scented herbs ought every day to be strewed about the room, and vinegar frequently sprinkled, about the bed clothes, and some evaporated, by pouring it on hot iron. The bed clothes ought to be in no greater quantity than is agreeable to his feelings, and when he can set up, with his clothes loosely put on, it is often a refreshing change of posture and situation. The patient should have his linen and bedding changed often, and the stools removed as early as possible; for nothing refreshes the sick more than cool air and cleanliness.

In the early stage of this disease, when there is much preternatural heat, washing the face and hands often in cold vinegar and water, and wiping the body with wet cloths, will be highly refreshing; and in the more advanced stage of the disease, when there is less febrile heat, the vinegar should be united with an equal quantity of spirit. In all cases where the fever is unusually protracted, and leaves the patient in excessive weakness, the recovery is slow and precarious, and the greatest care is required to prevent any error in diet, during the convalescence, as a very small degree of excess at this time, will produce very troublesome consequences. Food of easy digestion, taken in small quantities and often repeated; gentle exercise when the weather is favorable; attention to prevent costiveness, by some mild laxative; and the use of bitters to assist digestion, or the rust of steel, when there is any prevailing acid on the stomach, are the most certain means of re-instating health.

Contagion. Having in the preceding chapter enumerated the different means for the prevention of diseases, I shall now point out such as are most suitable to arrest the progress of contagion when commenced.

When a contagious fever makes it appearance, the first precaution is to seperate the sick from the healthy, and thus to cut off, as much as possible, the intercourse between them. The next step should be, to purify both beds and clothes from every particle of filth. The chambers must be often fumigated, by burning good sharp vinegar or tar, and the floor washed daily with lie, or the solution of pot-ashes, or strong soap-suds. A cloth wetted in lime water and hung up in the room, and replaced as often as it becomes dry, is also a great mean of purifying infected air.

When a contagious disease originates on ship-board, quick-lime should always be added to the water which is used for common drink, in the proportion of one pound of quick-lime, to a hogshead of water; but if the water be impure, a larger quantity of lime will be necessary; and some of it should be put also into the ship's well, to prevent the putrid and foul air arising thence.

When these means are ineffectual to stop the progress of any contagious disorder, fumigation with the nitrous vapor, will undoubtedly succeed; and the method of preparing it, is to put half an ounce of vitriolic acid into a cup, warm it over a shovel of coals, adding to it, by little and little, about the same quantity of powdered saltpetre, and stirring it occasionally with a slip of glass, as long as the vapor arises. The vessel is then to be carried about the room, the doors and windows being close shut, and put in every corner and place where it can be suspected there is any foul air; the fumigation to be continued for one or two hours every day, or oftener, until the contagion shall be destroyed.

If the vapor should irritate the lungs, so as to excite much coughing, fresh air should be admitted, by opening the door or windows of the room. However, after a little familiarity with it, this vapor will not offend the lungs, but on the contrary will prove highly grateful and refreshing.

The vapor of muriatic acid has also been successfully employed in purifying infected air, and destroying contagion. It is made use of in the following manner. Put one pound of common salt into an earthen vessel, and pour over it, from time to time, a small quantity of sulphuric acid, till the whole salt is moistened. If the air be foul, and peculiarly offensive, apply a gentle heat under the vessel, to extricate a larger quantity of vapor; but in general, the simple addition of the acid to the salt will be found sufficient, unless the apartment be very large.

On the first appearance of typhus or any infectious disorder in a gaol, hospital, boarding school, or any other place where many persons are crowded together, one of these gaseous fumigations should be employed in every room, in addition to a free ventilation and the greatest cleanliness.

An eminent physician of the marine barracks of Brest, states, that previous to visiting the hospital, he was in the habit of introducing into his nostrils sponge cut into proper size and shape, and moistened with some essential oil. He also kept in his mouth a piece of orange-peel; and in this simple method, he escaped several putrid and pestilential diseases, which in one year killed eleven physicians and one hundred and thirteen students.

Where any one is apprehensive of having caught infection, which may be suspected by a bad taste of the mouth, and want of appetite, an emetic should be given towards the evening, and on the patient going to bed he may be allowed a little mulled cider, or wine whey, with a small dose of the anodyne sudorific drops. (*See Dispensatory.*)

The warm bath, if such a luxury can be commanded, would here be found exceedingly refreshing and beneficial.*

INFLAMMATORY FEVER.

When fever is attended with an inflammatory diathesis, or when actual inflammation affects any part during the existence of fever, the patient is said to labor under one of an *inflammatory kind;* but according to the different parts in which the inflammation is seated, different denominations are given to the disorder. This disease, however, exists when there is no topical inflammation, and is distinguished by more considerable heat than usual, indicating an increased action of the arterial system. The fever continues for several days with nearly the same violence, the morning remissions being scarcely ever observable.

Symptoms. A sense of lassitude and inactivity, succeeded by vertigo, chilliness and pains over the whole body, but more particularly in the head and back; which symptoms are shortly followed by redness of the face, throbbing of the temples, great restlessness, intense heat, unquenchable thirst, oppression of breathing and nausea. The skin is dry and parched, the eyes inflamed, and incapable of bearing the light, the pulse hard and quick, beating from ninety to one hundred and thirty in a minute.

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*To this disease the philanthrophic Dr. Benjamin Rush, of Philadelphia, fell a victim, in the year 1813; a man distinguished throughout a long and brilliant life, by his private and social virtues. He was efficiently engaged in promoting the Independence of the United States in the war of the revolution; and contributed chiefly to the establishment of the Medical University of Pennsylvania, in which he filled successively the most important chairs. His memory is cherished with the greatest respect, not only by the members of the profession of which he was the ornament, but also by the people of the United States.

The disease unusually goes through its course in about fourteen days, and terminates critically, either by a diaphoresis, diarrhœa, hemorrhage from the nose, or a deposite of copious sediment in the urine—otherwise it changes to a typhus.

Causes. Sudden transitions from heat to cold, the application of cold to the body when warm, swallowing cold liquors when much heated by exercise; too free a use of spirituous liquors; violent passions of the mind; exposure to the rays of the sun; topical inflammations; the suppression of habitual evacuations, and the sudden repulsion of eruptions.

Treatment. The symptoms which attend this fever indicate most strongly the necessity of having an early recourse to the lancet, which should be freely used. In repeating the operation we must, however, be governed by the effect it produces on the pulse, and by the appearance the blood puts on after standing sometime. If the former continues full, strong, and tense, and the latter exhibits a buffy, sizy coat on its surface, the bleeding should be repeated by all means. The pulse in this fever is apt to become fuller and stronger after bleeding, which may easily be explained; for the plethora may be so great as to distend the vessels beyond their proper tone. In such cases, the vessels cannot act fully, and the pulse is contracted: but when the plethora is taken off by copious bleeding, and the vessels are allowed to contract properly, the pulse becomes fuller, which shows that the remedy is proper.

When the fever has been of several days' standing, and the head is much affected, either with severe pain or delirium, topical bleeding, by the application of three or four leeches to each temple is advisable, should the pulse not justify the use of the lancet.

Applying linen cloths, wetted in cold vinegar and water, to the forehead and temples, will often afford considerable relief.

If nausea or sickness prevail at the commencement of the disease, it should be relieved by a gentle emetic. But when the determination to the head is violent and the vessels have not been sufficiently depleted by blood-letting, the aperient and diaphoretic pills, or a dose of calomel, or infusion of salts, senna and manna, will be most proper. Cathartic medicine will not only relieve the head; but prevent determinations to the lungs and liver; and medicines of this class should be repeated every day or two during the continuance of much febrile action.

Diaphoretics are remedies also of great utility in continued fever. Therefore, with a view to determine the circulation to the surface of the body, give the febrifuge powders or mixture, the saline mixture, spirit of Mindererus, diaphoretic drops, Dover's, or antimonial powders in their usual doses. [*See Dispensatory,*] The warm bath will be found of considerable efficacy in encouraging the diaphoretic powers of these medicines. In many cases it will be sufficient to induce perspiration for the patient to bathe his feet in warm water, to lie in bed and drink plentifully of diluent liquors, as balm, ground ivy, or flaxseed tea, with the addition of a little nitre; but should these simple means not prove efficacious, it will then be necessary to resort to more powerful agents.

It ought to be remembered, in the whole of the inflammatory cases, we should never have recourse to diaphoretics, till arterial action and general excitement are considerably reduced by blood-letting, and aperient medicines. And, it should also be laid down as a general rule, in every species of inflammatory fever, to solicit perspiration rather by simple means, than to force it by any violent measures. When the means employed have a tendency to allay heat, soften the skin, relieve delirium, and induce sleep, we may be assured of their propriety. But sweating, when excited in fevers by stimulant, heating and inflammatory medicines, is almost sure to prove hurtful. It likewise proves injurious when excited by much external heat, or a load of bed-clothes: as also were, instead of relieving, it rather increases the frequency and hardness of the pulse, the anxiety and difficulty of breathing, the head-ache and delirium. When sweating is partial, and confined to the superior parts of the body, it will be more likely to prove hurtful than salutary.

The torpid state of the vessels of the surface, renders it, sometimes, necessary to have recourse to artificial heat, in order to equalize the circulation and produce perspiration. Therefore, when neither the warm or vapor bath can be procured, hot bricks, after being dipped in water, or vinegar poured upon them, and surrounded with flannels, should be applied to the feet, between the thighs, the sides, or arm-pits, while the patient is moderately covered, so as to confine the steam or vapors. These means will very generally and speedily cause a relaxation of the surface, and produce an abundant perspiration.

In having recourse to the warm bath, it is worthy of remark, that the natural temperature of the human species is about ninety-eight degrees, but owing to the cooling process constantly taking place on the surface, it is here considerably lower, and hence we feel the sensation of warmth, at several points below animal heat. It is this circumstance which renders it difficult to adjust a precise standard, though, perhaps, we may not err by fixing it from ninety to ninety-six degrees. However, it will be proper, from the different susceptibilities of persons, always to consult the feelings of the individual, and so to regulate the bath that it may impart a slight, but an agreeable sensation of warmth. But, though the application of heat to the surface, in the mode which we have described, will very generally excite sweating, it does not do so uniformly. There are cases attended by great heat of the surface, particularly in the early stage of the nervous and scarlet fever, which is aggravated by all the means we have enumerated, as designed to create perspiration. And in diseases of this nature, the effusion of cold water will be found more effectual in removing the constitution of the cutaneous vessels, than warm applications.

In the progress of this fever, it sometimes happens that particular parts of the body are much affected, and that there prevails either great oppression of breathing, or that violent pains in the head, stupor or delirium ensue. In all such cases the application of a blister near the part affected, will be proper, and relief will often be quickly procured by it. Where there is any unusual coldness of the extremities, with a sinking pulse, blisters to the inside of the legs will likewise prove highly serviceable. Their efficacy in such cases may be increased by the application of stimulating cataplasms, to the soles of the feet and palms of the hands. Blisters very powerfully restore the balance of the circulation, and diminish morbid congestions. In all cases of fever there is a fulness of the vessels; and we find the vessels of the eyes red, the face flushed, and the eye-ball itself apparently enlarged; but congestion produces also irritation, and often a less degree of phrensy. The usual wanderings of the mind are more rapid, the voice quick, the temper irritable, unreasonable, and occasionally violent. In each state, blisters are indicated, and often produce the happiest effects; sleep frequently coming on as soon as the plaster begins to stimulate. The milder symptoms of congestion yield frequently to purgatives; and when these have been freely used, blisters are often necessary.

In this fever, as in most others, sleep is much interrupted; and from a want of this, delirium often arises. Opium here would be an uncertain medicine; for should it fail to procure rest, the delirium would be greatly increased by it. In such cases, a pillow of hops laid under the patient's head, or a strong tea of this herb, will generally have the desired effect of procuring refreshing sleep. The camphorated powders or julep are of considerable utility in fevers, and in many instances have procured sleep. The calmness which camphor often seems to inspire; the serenity, and even the temporary ease, which are among its first effects, render it peculiarly valuable.

Hemorrhages sometimes occur in this fever, and at times are difficult to be restrained. If the pulse be full and hard; if much headache has preceded, the bleeding must be continued. But if it happen at the conclusion of fever, or be attended with faintness, antiseptics constitute the proper remedies. (*See Bilious and Nervous Fevers.*)

Palpitation of the heart, is frequently a troublesome symptom in fevers. It is often produced by a redundancy of blood, as indicated by a florid countenance, in which case the lancet must be resorted to. It sometimes proceeds from the state of the stomach and bowels, and may then be relieved by evacuants; but it arises also, in many cases, from a diminution, or an irregular distribution of the nervous power; and shows that the degree of debility is considerable when stimulants will be required.

In some instances, the fever is continued and kept up solely by debility. In such cases, the bark may be employed, provided on using this medicine, the patient sleeps well, breathes easily, and does not find any increased heat; but if, on the contrary, it produces difficulty of breathing, and restlessness, its use should be omitted. If by a prudent and judicious use of the remedies pointed out, we can lessen the congestion in the head, preserve the strength by the due regulation of temperature, and support it after the first days by more nourishing diet, we shall find little occasion for administering bark or other tonics. Cordials are however often necessary; and of these, wine is the most efficacious.

In this fever, partial evacuations, such as purging and sweating, which have no tendency to prove critical, often arise. When these happen, we must put a stop to them by resorting to the means recommended in such cases, under the head of Bilious and Nervous fever. Critical evacuations may be distinguished from those which are not so, by attending to the appearances which take place in other parts of the system. For instance, if a purging should arise, and the tongue continue foul, and the skin dry, without any abatement of heat and thirst, then we may regard it as by no means critical; but if, on its taking place, the tongue becomes clean and moist, the pulse moderates, the febrile symptoms abate, and a gentle sweat is universally diffused over the skin, then a crisis may be expected.

When this fever does not yield to the remedies pointed out, and assume the symptoms of tyhus, it is then to be treated as advised under the head of Nervous Fever.

Among the sequels of fever are cough, night sweats, an irritable and irregular state of mind, a capricious, and often an inordinate appetite. These are, in general, marks of debility only, and disappear with returning strength. Bark and tonics are usually employed for a time with little effect. The constitutional powers are at last exerted, and the patient gains in hours the strength which, with the most powerful tonics, it did not attain in days. The powers of digestion, however, do not return in the same proportion as the appetite, and relapses are not uncommon from unlimited indulgence.

REGIMEN. Throughout the whole course of the disease the patient is to abstain from solid food and animal broths. The diet should be chiefly gruel, barley, or rice water, arrow root, subacid fruits, water acidulated with lemon, the jelly of currants, or similar sharp fruits. It may be drank warm or cold, as is most agreeable to the patient. His chamber is by no means to be kept warm, either by fires or by being closely shut up, as is too generally the case; on the contrary, it should be of a proper temperature, by allowing the admission of cool air into it from time to time. His bed ought to be lightly covered with clothes. The patient may sit up a little each day, according to his strength, for this will lessen the fever, head ache and delirium; but when a salutary perspiration comes on, it should be indulged in bed.

On his recovery, a strict attention should be paid to diet, scrupulously avoiding to overload the stomach, and partaking of such things as are light, nutritive, and easy of digestion; all other causes likely to induce a relapse, are also to be carefully shunned.

Fresh air, gentle exercise on horseback or in a carraige, agreeable company, and a moderate use of wine, will greatly contribute to the recovery of convalescents. Should the appetite not readily return, or the digestion prove weak, the tincture of bark, stomachic bitters, or nitric acid will be proper.

Having pointed out, in an intelligible manner, the most approved method of treating the intermittent, remittent, and continued fever, as well as the means of prevention, it seems advisable to give some useful hints with regard to the *prognosis* by which the attentive reader may also be instructed in the art of foretelling what may happen to the patient, with respect to the termination or charge of a disease either by death or recovery.

PROGNOSIS OF FEVERS. In treating the prognostics of fevers generally, we shall first present some useful admonitions which are given in the symptoms of impending disease.

The prognostic of an impending disease may be drawn from the aspect of the countenance, the mode of living, the changes in habits or situations, and the cirtical period of life. If a person from a healthy state, becomes sallow, weak, with loss of appetite and spirits, or with disturbed sleep, we may reasonably suppose, that some disease threatens. If these indexes shall be gradually disclosed, with a countenance tinged lightly with yellow, obstructions in the liver have probably taken place; if more rapidly, with slight shiverings occasionally, a fever impends. A regular evening exacerbation, with cough, portends a hectic; a more violent shiver, with considerable heat, a continued fever, a deep redness in the face, with inflammation in the eyes, plainly point out accumulations in the head and chiefly venous ones; but these often arise from diseases impeding a free circulation through the lungs; so that the state of these organs must be considered in forming the prognosis. They often exist together, and aggravate each other. Violent fixed pains in the head, recurring at irregular intervals, and usually excited by every cause of increased circulation, generally show that some fixed obstruction prevents the free course of the blood through the organ; and this is followed by convulsions, and some times insanity, and frequently a sudden termination of life. A fulness in the stomach and abdomen are certain signs of accumulation, and it depends on the comparison of the other symptoms, whether it be obstructions of the viscera, accumulated contents, or merely flatulency, and the prognostic must be regulated by comparing the symptoms of each disease.

The mode of life will often lead us to form some prognostic of an impending disorder. Late hours cannot be borne with impunity, except by a very few; and their principal effect is to induce obstructions in the abdominal viscera. If connected with drinking spirituous liquors, the effect is usually felt in the liver. The sedentary student has reason to apprehend biliary accumulations, with costiveness, and a train of hypocondriac symptoms. Excess in eating or drinking will equally lead us to foretel diseases of the stomach, often of the head, connected with the stomach; but retributive justice is frequently seen to punish former error with the greatest severity, in the feelings of the patient by loss of appetite. Almost every situation is apparently consistent with health, if free air be admitted; but its deficiency leads to a variety of diseases from debility, which may be easily foreseen, and only can be avoided by a change.

Changes of habits and situations are frequently the source of different diseases, which we can often prognosticate, and sometimes guard against.

Abstemiousness, suddenly adopted after free living, and the contrary, are sources of disease, the former chiefly of complaints arising from insufficient stimulous, the latter from too great excitement. A sedentary, after an active life, is often attended with languor, low spirits, and visceral accumulations; the contrary, at first with languor and fatigue, soon followed by increased tone and vigor.

The critical periods of life merit attention also in our prognostics of various diseases. If scrofulous affections do not yield in the early period of life, there is little prospect of cure. The same may be said of epileptic fits and of Saint Vitus's dance, though to the latter there are many exceptions. The critical period of the female life is that of the cessation rather than appearance of the catamenia, for unless hectic symptoms come on, the discharge, though at a much later period than usual, becomes regular. The period of cessation, if not preceded by free, often copious discharges of the menses, prognosticates a less healthy old age.

Prognostics in *diseases* are usually drawn from the *vital*, *animal*, or *natural* actions. The *vital* actions, which give the best information, are the states of the circulation and the respiration. The first is chiefly known by the pulse. But before we proceed further on this subject, it may be proper to describe its action. The pulse consists in the reciprocal contraction and dilatation of the heart and arteries, by the former of which the blood is propelled through every part of the body. Much attention is required in feeling the pulse, since it often misleads, unless the practitioner is accustomed to its examination. In estimating its strength or weakness, it is necessary to consider the sex, temperature, and age of the patient. The pulse in women is quicker than in men; in the sanguine than in the melancholic temperament; in youth than in age. During the first year of an infant, its pulse is from one hundred and eight to one hundred and twenty; during the second from ninety to one hundred and eight; the third from ninety to one hundred. It varies little till the seventh year, when it is about seventy-five; and in the following year scarcely exceeds seventy. These numbers are subject to great variety. The pulse is quickened after a full meal, or taking any stimulous; after exercise or any agitation; it is also quicker when standing than sitting, and in the latter posture than when lying down. In hysteric patients it is excited to an inconceivable rapidity by the slightest circumstances without portending danger. A fat person has naturally a weak pulse; but it beats also to a disadvantage beneath a layer of fat. This circumstance should also be attended to in our estimate. The size of the artery we can often estimate, for we can feel, in thin persons, two-thirds of its circumference, and errors can scarcely arise from this source. A natural pulse is from 60 to 80, more strictly from 65 to 75. On feeling the pulse the artery should be first felt gently, and if any doubt arises whether the pulse is weak, it should be compressed strongly by three fingers, and the two uppermost slowly raised. If the pulse is strong, and seemingly weak only from compression, the blood, rapidly returning, will strike fully the finger below. If realy weak, it gradually recovers its former force.

A strong, firm pulse is consistent with high health, but if it strikes the finger like a tense cord, it shows a tendency to disease, and if with this hardness, it is increased in frequency, inflammatory fever is present. A throbbing pulse which strikes the finger with apparent but not real firmness, will sometimes be mistaken for what is styled the hard pulse. But this has not the same firm resistance which we have described. It strikes sharply but not strongly, and the relaxation is as rapid as the pulse is transitory. When there is internal irritation, the throbbing pulse will continue often to the last, showing, in every succeeding moment, its peculiar character more strongly; but in the commencement of fevers it often so nearly resembles the strong pulse as to deceive. A small pulse will also be mistaken for a weak one, unless by a practitioner of experience, but the lightness of its strokes depends on the small size, sometimes the depth of the artery. If a pulse is at 55 or 50, there is reason to apprehend some compression on the brain. A constant pulse of 90 in a minute, rising occasionally to 108, shows a considerable irritation in the system, and is not without danger.

If, in the early stages of fever, it rises to 120 in a female, not peculiarly irritable, it portends considerable danger, either from debility or irritation. If, at any stage it exceeds 120 or considerably exceeds it, except for a short time, we have the greatest foundation for apprehension.

An intermitting pulse is a mark of considerable debility, and prognosticates a dangerous disease. It is also a symptom of organic affections. This alarming view of the subject requires, however, some alleviation. An intermitting pulse is frequently owing to fullness of the stomach and bowels, and often arises from agitation of mind. It is also habitual, a circumstance not uncommon.

In such constitutions, the usual intermission, on the access of fever, often disappears, and the first symptom of amendment is the return of the intermission, which at the end of the long fever may appear alarming, if not connected with other favorable symptoms." In general, the favorable signs are pulses more soft, somewhat fuller, and in a slight degree more slow. The unfavorable signs are, more thready pulses, as if the artery was smaller, pulsations quick, weak, and irregular.

The state of the circulation is also known by the complexion. A sallowness, and a want of transparency show that the blood is not carried to the extreme vessels; and even when the cheeks are flushed, if the skin round the lips and nose is of an opaque sallow whiteness, the conclusion will be the same, and strength of the constitution is sonsiderably impaired. The appearance of the eyes is equally indicatory of strength and weakness, and the character of the features is preserved in proportion to the remaining strength. Each appearance depends on the state of the circulation.

Respiration is a vital action connected with the state of circulation, and of the greatest importance as a prognostic. Respiration *slow*, *full*, and *deep*, shows the strength and all the vital organs to be unimpaired, and in every situation is highly favourable. The *weak*, *slight* and *insufficient* respiration is, in general, a mark of weakness; the *suffocating* of obstruction; the *quick* of considerable irritation, exciting rapid expiration. The *stertorous* shews insensibility, from compression on the brain; the *stridulous*, inflammation of the trachia; the *rattling*, accumulations of phlegm often unconquerable; and the *intermittent*, attends the last efforts of expiring life.

The *animal* actions, from which we may draw prognostics, are, the *senses*, *muscular action*, and *sleep*. Violent delirium is a symptom of active inflammation in the brain, and is dangerous only so far as it shows a violent acute disorder. The wandering delirium in fevers of a low kind, is a symptom of no great danger, unless it comes on early, and in a degree disproportioned to the state of the fever. In other complaints it will excite serious apprehensions, and shows that the inequality of excitement depends on debility. If it persist after the cessation of the fever, unless evidently in consequence of debility, there is reason to suspect an organic injury in the brain, and more so if violent delirium has occurred in the early part of the complaint. Delirium, arising from want of sleep, is said not to be dangerous, but the want of sleep itself is generally owing to a languid inflammation of the brain. General restlessness is a symptom of the same kind.

Of the external senses, and their organs, the eye affords the most particular symptoms by which the event may be foretold. The sensation of black spots, which induces the patient to pick the clothes, as if he could remove them, is a symptom of debility, and is attributed to a *partial* palsy in the retina. It is certainly a highly dangerous symptom, though by no means a desperate one, as it has been represented. A more dangerous symptom is double vision. It is in general an early symptom of hydrocephalus. When the eye-lids fall, and can scarcely be elevated by the exertion of the will, it shows considerable weakness, and when the patient sleeps without closing them, great insensibility. The latter symptom is, however, often owing to an irregular contraction of the muscles of the eyes, for in such cases the pupil is drawn up under the lid. The symptom is not, however, on this account, less alarming. The clear natural appearance of the eye is a favorable symptom; but too great brilliancy, or too quick motions of this organ, show approaching delirium. A severe fixed look, without an object, is a similar symptom. The appearance of the eyelids sometimes points out a weak state of the system, particularly when there is a blackness in the lower lid, towards the inner corner of the eye.

A noise in the ears in fevers, is said to be a sign of approaching delirium, though frequently a symptom of weakness only, and often occurs from this cause in weak and old people. If this noise occurs in the beginning of fevers, it is said to foretel a violent and a tedious disease. Hearing particularly acute is often a precurser of delirium, and without fever, it is the effect of strong excitement in the brain. Deafness in fevers is said to be a favorable symptom: we can at least observe that we have not found it unfavorable. Depraved *taste* is very common and offers no particular prognostic.

Lassitude on the attack of fevers, in so great a degree as to produce *fainting*, is always a very dangerous occurrence. If attended with a considerable wandering, the danger is greater.

It is a favorable sign if, in the beginning of a fever, the patient can sit erect with his head elevated. And, if the patient can support himself in bed, and occasionally turn on his side, about the tenth or twelfth day, circumstances are favorable.

Sleep, if calm and refreshing, is always a favorable symptom; but if interrupted, broken by terror, excited by dreadful images in dreams; if, instead of tranquil rest, the patient starts, catches, talks in a hurried manner, though not conscious of terror, it is unfavorable. *Deep sleep* is itself a disease, and shows considerable oppression on the brain; yet, at the period of a crisis, if attended with a soft pulse, moderately slow, and a soft moist skin, it is salutary. After a crisis, the deepest, long continued sleep is not dangerous, if not attended with a stertor, (a sound like snoring) or with a pulse preternaturally slow.

The *natural actions* which furnish prognostics, are digestion and its consequences, and the various excretions. In fever the *appetite* is at once destroyed; nor is it a favorable sign, in an acute disease, that it should remain or return too soon.

The appearance of the tongue is of considerable importance as a prognostic. Whitness of its surface is a sign of fever; and if white and dry, it shows the fever to be more considerable. In the progress of a fever it becomes brown, a darker brown, and even black; and these colors are usually seen when the tongue is dry and hard. While the edges continue clean, and of their natural speckled appearance, there is little danger; and indeed fevers have terminated favorably, though the tongue has been, for many days, dark, dry, and even black. The tongue sometimes in the course of fever becomes suddenly clean, and of a shining red. This, in general, shows that the fever will be of some continuance. The tongue sometimes cleans slowly in elderly and debilitated constitutions. And, independent of fever, in such habits, the tongue is often black at the back part.

A heavy load in the stomach is an unfavorable symptom, unless it arises from indigestible food, since it shows either an accumulation of viscid mucus, or a want of energy in the organ. When the irritability of the stomach is exhausted by excessive stimuli, the effect is a heavy load.

Vomiting is the connecting symptom between affections of the digestive organs, and those of the secretory ones. When violent and incessant, without previous accumulation of bile, it is an unfavorable symptom, as it generally arises from irritation on the brain. Even when from bile it is distressing, for the act of vomiting emulges the biliary duct, and the inverted motion of the duoderum carries the bilious fluid back into the stomach, thus furnishing new fuel for the flame.

A frequent *diarrhœa*, independent of mucus inflammation, is dangerous, as it shows considerable debility, and a difficulty of retaining the food so long as is necessary for its assimilation.

The other excretions, which have attracted attention as prognostics, are the *perspiration*; the *urine* and *alvine evacuations*. It is generally acknowledged, that the salutary perspiration is not attended with heat, is not clammy to the touch, is generally diffused without any load, uneasiness, or anxiety. The sweat of an opposite kind does not relieve, but debilitate. Cold clammy sweats arise from a total relaxation of the exhalents, and are, in general, the preludes of death.

The state of the *urine* has also afforded numerous prognostics, and the discrimination of its clouds, its sediment, &c. have been peculiarly minute. The greater number of these appearances may be disregarded. Urine must be examined only after it has been made for some time. It should be poured into a glass while yet warm, and kept in air moderately cold. With such precaution, some useful lessons may, perhaps, be drawn from its appearance.

The quantity of urine varies in different persons, and, in the same, at different periods. Hence, from this no conclusion can be drawn. In general, where it is remarkably deficient, it is at other times equally redundant; and this chiefly occurs in hysterical constitutions. The excess is also at no time dangerous, unless the quality of the urine is changed, since it only depends on irregular action of the renal vessels. When the urine is in small quantity, its color is necessarily high; and at the conclusion of a gouty paroxysm, as well as of a paroxysm of an intermittent, it throws down a brick colored sediment. When highly red without depositing any sediment, it shows a violent, and probably a long fever. In general, a scum on the top, in the early period of fevers, seems to show considerable debility; and we have usually found such fevers slow and tedious. A cloud, suspended at first near the top, and afterwards falling lower till in succession it reaches the bottom of the glass, are favorable signs; and a suspended cloud, previous to the fourteenth day, shows that the disease will terminate at that period. If it appear after the fourteenth day, the disease terminates at the twenty-first, gradually lessening on the intervening days.

The progress of the cloud in the urine, in cases of fever, is regular. It is at first suspended at the top, gradually falls;

though for a day or two, often stationary near the middle of the glass, and at last reaches the bottom. It falls to the bottom often some days before it is accompanied by any sediment; but when a white or redish sediment also falls down, the crisis is nearly complete. The urine is sometimes turpid, if not at the moment of discharging it, very soon afterwards; and this, according to the authors of prognostics, is said to show an insidious disease. Frothy urine, or which long retains the air bubbles, is said to show a tedious disease, or a slow consuming fever. In bilious fevers, the urine is sometimes of a green or black color, which shows a highly putrid state. The black is more dangerous, but unless highly fœtid, we have frequently seen it without its being followed by a fatal event. In chronic diseases, red urine, depositing a copious, red, scaly, or branny sediment, is a mark of considerable debility. A mucus and viscid sediment is usually alarming from the apprehensions which it excites of abscess in the bladder. Mucus is, however, light and equable, wholly free from fœtor, and arises from an inflammation of the mucous membrane. It arises also from any irritation of the neck of the bladder; and is a frequent symptom of gravel and calculus.

The nature of the *alvine discharge* is of considerable importance, and these should be frequently examined with attention. In acute diseases the discharge is often estimated by the number of motions rather than their appearance, and we have been told there has been a free discharge from the bowels, when the stools had not the slightest feculence. Liquid, frothy, watery motions, with little color or smell, show, in general, a tedious fever, for in every fever there seems to be an obstinate retention of the fæces, and motions of this kind show that the spasm is peculiarly violent. When the stools, in the beginning, are highly fœtid and bilious, it has been accounted a dangerous symptom; but if the discharge be free and copious, they are rather favorable. Calomel will, through the whole course of a fever, often bring off such motions by its superior power on the biliary secretion. Small, black, pitch-like motions, are always dangerous, and show equal weakness in the alimentary canal and the biliary system. On the contrary, hardened excrement, brought off with little straining or cholic, is favorable.

From the remarks which have been offered, it will appear that our prognostics of fever must be taken generally from the signs and degree of debility. This is obvious often to the sight. Every circumstance which regards a patient in a fever, will, by attentive observation at the bed-side, throw some light on this subject.

The situation of the patient is dangerous, if the character of the countenance is soon lost; if the eyes apparently glare on vacancy; if the answers are rambling and incoherent; if slight, partial, involuntary contractions occur in the features; if the tongue trembles, or is soon dry and dark; if he soon declines turning on his sides, lies on his back, and sinks down on his bed; if the extremities are cold and benumbed; if the tendons are particularly tense, and occasionally start; and if he appears to pick off or remove any dark spots on the bed clothes, or wishes some supposed dark object to be removed; each of these symptoms is a mark of debility; and the earlier they occur in fever, the greater is the danger.

If, however, in a fever, the expression of the countenance is unchanged; if the mind is steady and unruffled; the sleep, though short and interrupted, refreshing, and the patient is sensible of having slept; if the tongue is clean at the edges; the abdomen neither tense nor painful; if the patient lies on either side, and awakes without hurry or confusion, we may prognosticate a safe termination.

In the more usual cases of fevers, if the disease is properly managed in its earlier period, and the circumstances are on the whole favorable, there are few instances in which a salutary change does not take place on the tenth or fourteenth day. Where this is not observable, a gradual amendment takes place, which is clearly conspicuous on the seventeenth, and the fever has disappeared before the twentieth.

COLD.

Or, in the language of the Nosologists, **Catarrh** is a disease of the inflammatory kind, which occurs more frequently on sudden changes of the weather, and attacks persons of all constitutions, but especially those of consumptive habits.

It is also at times epidemic, when it is known by the name of *influenza*, and has been erroneously considered as depending upon a specific contagion for its cause.

The influenza generally pays us a visit every six or seven years. The season of its visitation is the middle or latter end of autumn, after a long spell of dry weather. It would appear to be no respecter of persons, knocking equally at the door of the rich and the poor, and attacking the young no less than the aged.

Symptoms. Its first symptoms are a stoppage of the nose, dull pain, with a sense of weight in the forehead; stiffness in the motion of the eyes, and soon after cough, hoarseness, an increased secretion of mucus from the nose, and tears from the eyes, attended with more or less fever, and sometimes sore throat.

Cause. This disease is generally the effect of cold, which, by obstructing the perspiration, throws the redundant humors upon the nose, fauces, and lungs; or to those great physical changes which give rise to epidemics.

Treatment. The treatment of this disease, as of all others of an inflammatory nature, consists of the antiphlogistic, or cooling remedies. Where it is slight, little else will be necessary than to pay attention to the state of the bowels; live abstemiously, avoid cold, and whatever may increase the feverish habit.

Bathing the feet in luke-warm water, or bran and water, a little hotter than milk just taken from the cow, at the same time that something warm, as a glass of hot toddy, punch, or mulled wine, is taken internally, forms a remedy upon which many people place their sole reliance for the removal of their colds. But this, unquestionably, is a hazardous practice; for it may be regarded as a general rule, in inflammatory diseases of whatever description, that all attempts to excite perspiration by stimulating and heating drinks, will be uniformly injurious.

Foot-bathing is certainly a simple, and often found to be a powerful assistant of the operation of other remedies, by equalizing the circulation and promoting perspiration. In this practice, however, much caution is necessary not to get fresh cold; the feet should be carefully and speedily wiped dry, and afterwards wrapped up in a warm dry flannel, or the patient should immediately go into a warm bed.

When there exists any febrile action, the free use of cold water in the early stage of the disease, forms a safer and a much more efficacious remedy than the administration of warm or stimulating liquids. A glass or two of cold water, taken upon going to bed, is a very common and sometimes a successful remedy for cold.

The impression of cold drink upon the stomach, independently of its general refrigerant operation, seems to have the effect of promoting the action of all the secretory and excretory vessels. Taking a draught of cold water every hour or two with ten or fifteen grains of nitre dissolved in it, will be found a remedy as effectual as it is simple in almost every case of inflammatory catarrh. Should it be observed that the nitre has a tendency to increase the cough, nauseating doses of tartar emetic should be added to each draught of cold water, which promote expectoration as well as diaphoresis, without, at the same time, increasing arterial action. When recourse is had to this medicine, dissolve three grains of tartar emetic in a quart of pure cold water, of which solution a gill to a half pint may be given to an adult every three or four hours, or at such intervals as will produce a very gentle nausea, without creating any considerable degree of uncomfortable sensation. The consent of the stomach with every part of the animal system is so generally acknowledged, that this organ is now admitted to be the medium through which almost all medicines, taken internally, produce their effects upon every part of the frame. Hence cold applied to this viscus must be attended with more speedy and certain effects than to any other part whatever. Its operation in this case is simple; it produces its effects merely by the abstraction of the stimulous of heat.

Although it will be admitted these two plans of cure, however contradictory, have both occasionally succeeded; yet the cool mode of treatment, when employed with a due degree of circumspection, is unquestionably the most advisable, for the successful removal of the disease in its incipient state. Of all the improvements which have been made for many years, in the practice of medicine, the introduction of the use of external cold, in the treatment of acute diseases, may be regarded as one of the greatest importance. The theory upon which it is founded is rational, and the practice it has led to, has been attended with the most happy effects. In fevers, inflammations, and eruptive disorders, it has restored thousands that would otherwise have perished; but its free and extensive use in catarrh, is inadmissible, as by exposing the body afresh to a low temperature, the original mischief would be often spread wider, or the foundation would be laid for other diseases more formidable. However, upon the accession of the symptoms indicating the commencement of the disease, the air which immediately surrounds the body, and which is inhaled in respiration, should be as cold as is consistent with comfortable feeling. Perhaps a temperature from forty to fifty degrees, will be most salutary. An approximation to this may always be effected by the patient remaining, in cold weather, in a room warmed only by a small fire; and in the milder months, by a free exposure to the open air; in all cases carefully avoiding the causes which operate in rendering the cold air injurious. The covering of the body, both day and night, should be as light as the external temperature will allow, and every thing taken in the stomach should be perfectly cold. By pursuing the refrigerating plan, the activity of the whole arterial system is diminished, the inflamed vessels are relieved from that redundancy of blood, and increased action, in which the disease consists, and finally recover their wanted healthy tone without any morbid relaxation of their extremities. Whereas, the mode of treatment which admits of warm drinks, warm rooms, and warm air, when it operates in a manner the least dangerous, produces, by excessive excitement. such a relaxation of the exhalents of the bronchiæ, as to admit of a secretion of mucus, or pus, which, though it relieve the topical inflammation, by what is called expectoration, either lays the foundation for chronic catarrh, or terminates in consumption.

Full vomiting, at the commencement of the complaint, will seldom fail to prevent its further progress. The operation of an emetic, besides its more immediate effect in evacuating the contents of the stomach, produces such a universal commotion in the system, as to excite every minute fibre into action; and in this way it is that emetics prove salutary in the majority of complaints in which they are administered. They excite a new and powerful action, which expels or overbalances the pre-existing weaker one. Thus they arrest the progress of fever, and thus, if administered at the accession of catarrh, they will prevent the occurrence of the symptoms which would otherwise infallibly ensue. In three cases out of four, perhaps, if upon feeling a stuffing of the nose, dull pain in the head, sneezing, and other symptoms which mark the commencement of the complaint, a person has resolution to try the experiment, he will find a brisk emetic have the effect of completely restoring him to his natural feeling. Emetics will also prove beneficial, not only at the commencement, but at other periods of the disease, particularly when the lungs are oppressed with phlegm.

In the treatment of this complaint, the indications which arise to be fulfilled, may be reduced to the following heads:—To reduce inflammatory action in the early stage—to palliate urgent symptoms—and to diminish irritation in the protracted stage.

When the disease is violent, aperient medicines, in conjunction with blood-letting in a larger or smaller quantity, should be resorted to, and repeated as the symptoms may require.

Although the occasional use of aperients is indispensable, and should be had recourse to early in the complaint; yet very active purging is often found more prejudicial than serviceable, by diminishing expectoration. The saline aperients, as epsom or glauber salts, in the form of the cathartic mixture, [*See Dispensatory*] have the advantage over others in febrile diseases, being sedative and cooling. Those, however, who have an aversion to salts, may substitute any other opening medicine, as castor oil, rhubarb, sulphur, and cream of tartar, or senna and manna. But the purgative which of all others is most powerfully febrifuge is calomel, which may always be administered with perfect safety, provided the patient guard properly against imprudent exposures to wet and cold at the time he is under its operation, and there is no peculiarity of temperament that militates against its use. When recourse is had to calomel, give it in the form of the aperient and diaphoretic pills, [*See Dispensatory*] or conjoin therewith a few grains of ipecacuanha, or a small portion of tartar emetic; and in a few hours after swallowing the medicine, or, if it be taken at bed-time, on the next morning give a small dose of epsom salts or castor oil.

In catarrh, the means which nature occasionally takes for its removal, or, in other words, the symptoms which mark its critical or spontaneous termination, are, principally, a copious and equable flow of sweat, an increased secretion of mucus from the membrane of the trachea and bronchia, the production of a diarrhœa; and hence, an indication for the use of *diaphoretics*, *expectorants*, and *laxatives*. Therefore, with the view of regulating and promoting the salutary efforts of nature, it is advisable, during the interval of purging, if the skin remains obstinately dry, and there exists a general feverish disposition, to give the saline mixture in the state of effervescence spirit of Mindererus, the febrifuge mixture or drops, Dover's, antimonial, or febrifuge powders, [*See Dispensatory*] or infusion of seneca root in their usual doses, with diluting liquors; as flaxseed, balm or ground ivy teas, weak wine whey, barley water, &c. in order to produce a determination to the surface.

When the cold chiefly occupies the head, it has been advised, to suffer the whole head to remain, for a considerable time, in contact with the steam of water, as hot as the patient can bear. And this is to be done in the following manner:—While the patient sits up in bed, a vessel containing two or three quarts of water, may be placed immediately under and before his face, letting it rest on his lap, and a piece of flannel or thin blanket being put over the head, and extending under and around the pan; this will keep the steam in contact with the face, neck, and head, and at the same time, will admit sufficient air for respiration. In cases of great stuffing up of the nose, and difficulty of breathing through the nostrils, this practice has frequently had the effect of removing these symptoms in the course of a few hours; but it is seldom successful, where there is considerable pain and oppression at the forepart of the head, in consequence of some inflammation occupying the cavities communicating with the nostrils. In such cases, a pinch of snuff, united with cayenne pepper, has afforded some relief. But where the pain is extremely severe, the patient will experience most relief from a blister applied to the back of the neck, or to one or both temples.

When the mucus membrane of the nose is much affected, it should be washed frequently with a thick mucilage of gum-arabic, or pith of sassafras, [*See Materia Medica*] or smeared, from time to time, with a little tallow, thorn-apple, or simple ointment. [*See Dispensatory.*]

An inflammation of the throat, producing soreness and difficulty of swallowing, is an occasional symptom of this complaint; and where it is slight, it will readily be removed by taking the nitre lozenges, [*See Dispensatory*] or small portions of nitre in the mouth, and swallowing them as they slowly dissolve. Where it is of a more severe nature, the application of onions to the feet, [*See Materia Medica*] or the remedies advised under the head of sore throat must be resorted to.

In case of pain or oppression at the breast, after the inflammatory action of the system is pretty well subdued, the application of a blister as near as possible to the affected part should not be omitted.

The most prominent symptom of cold is *cough*, which being uniformly present, and often very distressing, is usually that to which the patient directs the chief part of his attention.—The medicines to be resorted to for the purpose of alleviating cough, and producing expectoration, are mucilagenous and sheathing drinks, as flaxseed tea, barley water, &c. or taking, now and then, a table spoonful of the flaxseed syrup, or a tea spoonful of equal parts of sweet oil and honey, or a mixture composed of one part oil, and two of honey or syrup, or some of the more simple pectoral mixtures. [*See Dispensatory.*] After the inflammatory symptoms have abated, the pectoral mixtures combined with laudanum or paregoric, [*See Dispensatory*] will afford the greatest relief; and where the patient's rest is particularly disturbed in the night, an opiate at bed time will be highly necessary, but it should be combined with some diaphoretic, as in the form of the anodyne sudorific bolus or draught, [*See Dispensatory*] or by giving two parts of paregoric with one of antimonial wine in some warm tea.

Barley, hoarhound, and sugar candies, liquorice, and various syrups of indigenous simples, are universally employed for the purpose of allaying the tickling which produces cough. The effect of all remedies of this kind, is to smear over the glottis or fauces, and, by thus sheathing them, rendering them less susceptible to the irritation. As they have the advantage of being innocent, and are usually found to afford a temporary relief, they may, in every case, be resorted to with advantage, as palliatives.

Whenever a cold, either in consequence of its severity, or from its having been neglected in the first instance, runs out to a considerable length, it is usually kept up by a state of simple *irritation* of the part, which supervenes upon the disappearance of the inflammation, and becomes as it were habitual, exciting the vessels to an increased secretion of mucus and producing cough by sympathy with the larynx. In this protracted stage of the complaint, when the cough and spitting alone remain, it is absolutely necessary that the patient should carefully guard against all unnecessary exposure to cold, and to defend particularly the breast and feet; and when obliged to go into an air of low temperature, to increase his clothing, and hold a thin pocket handkerchief before his mouth and nose. The vessels are in a state of relaxation or debility, when the cough is long protracted, and the consequence of any unusual application of cold is very generally a suppression of their excretions, and a subsequent renewal of the inflammatory affection. And it is in this way that colds are often kept up for months, until they degenerate into a permanently morbid state of the lungs. In such cases the nitric lac ammoniac, [*See Dispensatory*] in doses of a table-spoonful in a cup of flaxseed tea, or sweetened water, every four hours, to adults, will be found a most valuable remedy. Benefit will also be derived from wearing a burgundy pitch, or some warm adhesive plaster, upon the breast, or between the shoulders.

Should these means prove ineffectual, one or two grains of calomel, with double the quantity of powdered squills, taken by an adult at bed-time, and continued until a ptyalism is produced; and afterwards the nitric lac ammoniac, administered as above directed, may be depended upon.

Another remedy which has succeeded in this state of the disease, is the tincture of digitalis, in doses of ten drops, three times a day, to adults, and its efficacy will be increased, by using the vapor bath.

Inhaling the vapor of hot water is a remedy which has long been in use, in all inflammatory complaints of the chest, However, upon the first commencement of catarrh, it has had the effect of rendering the subsequent symptoms more severe; but at a more advanced period of the complaint, it tends powerfully to arrest its progress, by increasing the secretion from the glands and vessels of the part, and thereby diminishing their inflammatory action. The vapor has been found most efficacious when impregnated with vinegar or camphor, or infusions from emollient herbs. The inhaler, invented by Dr. Mudge, of England, is well adapted to render the process perfectly convenient for children. But a common funnel will form a very good succedaneum for the inhaler, when this cannot be conveniently procured, the broad part being inverted over a vessel containing the water, and the steam being received by the mouth applied to the small end. Should a funnel not be at hand, a tea or coffee pot, may be substituted, and the operation continued from a quarter to a half hour. In this manner the vapor bath may be received twice or thrice a day, carefully avoiding sudden exposure to the external cold air. According to Dr. Mudge, a tea-spoonful of paregoric, taken at bed-time, in some warm liquid, and the use of the warm vapor arising from simple water. through his machine, will be sufficient to cure a catarrhous cough in a night's time.

An unpleasant and not unfrequent sequel of this complaint, is a hoarseness or diminution of voice, depending upon a state of the muscles, subservient to speech, approaching to palsy. This is generally of a temporary nature, though it has been known to continue for several months. In such cases the infusion of seneka-root, with one-fourth of honey, has been employed in doses of a table-spoonful every two or three hours, and at the same time some of it used as a gargle, with the most happy effects. It has also been readily cured by taking a tea-spoonful of the syrup of horseradish every hour or two; or by retaining in the mouth a piece of this root, or by gargling the throat frequently with an infusion of red pepper, mustard seed, or horseradish. This symptom has been known to be instantly removed by means of electricity, and also by inspiring oxygen, or pure air. It is of importance, if the patient be in a debilitated state, to invigorate his constitution by nutritious diet, regular exercise, and removing to a more salubrious air. A popular writer of considerable celebrity, Dr. White, states a case in which not only a loss of voice, but a partial palsy of the muscles of deglutition, producing an imperfect, and, at times, a total incapacity of swallowing, ensued upon the disappearance of a severe catarrh, attended with sore throat; and which did not go off for the space of a month. In this case, the patient was in the habit previous to an attempt of deglutition, to suffer a tea-spoonful of brandy to pass over the affected parts; after which, she immediately became capable of swallowing with ease, but again lost the power of doing so, after the effect of the stimulous had worn off.

Should hoarseness occur in the inflammatory or early stage of the disease; inhaling watery vapors, bleeding, cold water, and demulcents constitute the proper remedies.

Although the attendant symptoms of cold, in its incipient stage, seldom amount to such a degree of urgency as to demand the antiphlogistic mode of treatment in its more active forms; yet, if it be aggravated or rendered frequent in its return, by neglect or imprudence, it becomes a malady which not only combats, but often defeats the skill of the most experienced physician. And it should be remembered, whenever the cough is frequent, the fever considerable, and the breathing intercepted by transient pains or tightness of the chest; unless the most powerful means, as bleeding, purging and blistering, with diluting drinks, be early employed, inflammation of the lungs will succeed, which, if not speedily removed, will inevitably terminate in consumption.

I have now presented to my readers, in a manner familiar to every capacity, the most approved plan of cure of this destructive complaint. Should it be adopted in the domestic management of colds, I shall not have wholly failed in my earnest endeavors to lessen some of the dreadful ills, for, of all the diseases incident to the human species, there is none so frequent in its occurrence—none which excites so little attention—and none, perhaps, when neglected, is so often followed by fatal consequences, as that under the name of *cold* or *cough*. It is the rock upon which the health and lives of thousands have been wrecked.

The frequency of this disease, from the sudden changes of weather to which our climate is subject, and the slight degree of alarm generally excited by what is called "*only catching a cold*" too often occasions that neglect, which gives rise to the most distressing maladies, such as quinsy, pleurisy, inflammation of the lungs, rheumatism, &c.

Fully satisfied that numbers fall victims to the supposed insignificance of this insiduous enemy, I have thought it my duty thus to warn the inattentive.

Regimen. A rigid attention to diet, is not to be looked for at the occurrence of every slight attack of cold; but when the disease rises to such a degree as to produce a state of general febrile indisposition, it will be absolutely necessary for the patient to abstain from every thing of a stimulating nature. He should confine his diet to light things, of easy digestion, as arrow-root, sago, tapioca, rice-milk, custards, jellies, fruits, &c. &c. Where the symptoms are so trifling as not to render an abstinence, from animal food requisite, those means of a more digestible nature should be chosen; and if the patient has been accustomed to the use of spirituous liquors, he should substitute for them, porter, cider, or wine, diluted with water. Every thing which either stimulates the glottis and fauces in deglutition, or proves indigestible after being received in the stomach, invariably increases the cough, and consequently is injurious.

Prevention. To guard against this disease, the utmost attention should be paid to a due regulation of the clothing, which ought to be neither too thin, nor so irregularly disposed, as to leave one part of the body *naked*, whilst the rest is burthened, and too warmly clad; an error frequently committed among children and young persons. Warm rooms and impure air may weaken the body, but warm clothing can never be injurious in cold weather. The use of flannel cannot be too highly recommended as a preventive of this disease; and if an objection should be made to wearing it next to the skin, on account of the irritation it occasions, it may be worn over the linen.

But while thus careful to guard against the morbid influence of cold, by accommodating our dress to the weather, we should be equally cautious not to run into the opposite extreme. Too much clothing produces a delicacy of frame that disposes no less to disease, than an imprudent disregard of necessary covering.

There are two parts of the body more especially liable to receive the ill impressions of cold, and communicate them to the rest—the feet and the chest, and with the delicate and susceptible, if fashion govern in all other respects, these at least should be defended with the utmost care.

Whenever the whole or part of the body has been exposed to the long-continued action, or otherwise to the sedative influence of cold, it is said to be chilled, or in other words, it falls in a state of atony, in consequence of the reduction of its nervous energy, and is thereby deprived of the faculty of duly supporting its natural heat. This state occurring universally, and to a great extent, usually proves destructive to life. When local or general in a less degree, it proves the exciting cause to various diseases of the active kind, determined in their seat by the particular predisposition of the person; the weakest part of the body invariably receiving the noxious impression, however generally applied. Thus those whose *pulmonary system* is weak and irritable, will have catarrh, or inflammation of the lungs; others, whose *muscular fibres* are most susceptible, will be attacked with rheumatism; an those addicted to *drunkenness*, will, perhaps, be afflicted with an inflammation of the liver; and so of various other inflammatory affections. Colds, however, are by far the most frequent. which, perhaps, may be accounted for, in a great measure, from the lungs being so particularly exposed to all the varieties of atmospherical temperature.

A person not particularly liable to catarrh, would probably seldom feel ill effects from being chilled by an exposure to the cold air, if he were careful to restore the natural warmth of the body by degrees; but if, during the presence of that uncomfortable state of feeling, produced by the diminished temperature, he either suddenly come into a warm room, or drink of warm stimulating liquids, he will seldom escape with impunity.

It should be remembered that when any part of the body has been exposed to cold, it is liable to be much more affected by heat, than before the exposure. Of this, the method of treating frozen limbs in cold countries, affords a beautiful and decisive proof. Were a frozen limb to be brought before the fire, or immersed in warm water, a violent inflammation would come on, and speedily terminate in mortification. They therefore rub the parts benumbed with snow, and then very gradually expose them to a warm temperament.

Hence it will evidently appear, that strong drinks, both before and after exposure to severe cold, must be highly dangerous; and it should always be remembered, that when the body has been either chilled or much heated, it must be brought back to its natural state by degrees.

The common prudence of shunning, when heated, a torrent of cold air from the crevice of a door or window, or throwing off the clothing immediately after taking exercise, are so obvious, as not to be required to be enlarged upon. Putting on wet clothes, or lying in damp sheets, or sitting in wetted rooms, are also so well known to be injurious, that it is hardly necessary to admonish people against such obvious improprieties.

The operation of moisture in producing catarrh, appears to act in the same way as cold, by proving a sedative. The feet being most liable to receive the impressions of damp, as they are of cold, one of the most frequent causes of catarrh is getting them wet; to guard against which, is of importance to those liable to the complaint; and when a person has been exposed to the wet weather, the clothes should be changed as soon as possible, after wiping the body and extremities with a cloth wetted in spirits, to which a little table salt has been added.

The predisposing causes of catarrh are, 1st. Original peculiarity of constitution; secondly, an acquired morbid irritability of the pulmonary system; thirdly, a morbid delicacy of frame, induced by enervating indulgencies, or weakening occupations; or occasional and accidental debility. The exciting causes are those, which, when applied to the body, under a state of predisposition, excite disease into action.

It is worthy of remark, that however predisposed to disease the constitution may be, by carefully guarding against the causes which more immediately produce it, its dreaded incursions may usually be prevented, and health may often be preserved to old age. The importance, therefore, of avoiding the exciting causes of a disease, so insiduous in its nature, cannot be too strongly insisted upon, more particularly in the early periods of life, and in constitutions peculiarly obnoxious to its attacks.

Some persons are so susceptible of cold, as to be unable to endure the least change of temperature, without having a violent fit of sneezing, coughing, and other symptoms of incipient catarrh. And these will recur so frequently, and of so temporary a nature, as to justify the expression, that they are seldom free from cold. The means of obviating this susceptibility is, by gradually and cautiously inuring the habit to the impressions of cold, by accommodating dress to season and personal feeling, and when changes from cold to heat, or the contrary, are unavoidable, in guarding against the transition being sudden and immediate.

Nothing so much contributes to enervate the powers of the human frame, as an excess of artificial heat. The ruinous effect of this indulgence is, that our health and comfort are destroyed by the frequent recurrence of some one or other of those disorders, which have their origin in cold. Debilitated by the perpetual stimulus of heat, we become sensible to every, even the slightest, variation of atmospherical temperature. Few, indeed, of the refinements of modern luxury are more prejudicial to health, by rendering the body susceptible of cold, than the living in rooms heated by stoves or enormous fires. Let those who have at heart the preservation of their health, and the vigor of whose frames is as yet entire, carefully avoid making this effeminate indulgence necessary to their comfort. Let them, by gradually training themselves to bear the impressions of cold, endeavor to induce that enviable state of hardiness, that will enable them to brave, with impunity, the vicissitudes of the atmosphere of our climate. It is in the power of every one, to render the apartments they occupy, cool and airy; and there are none, perhaps, who have it not in their power, more or less, frequently, during the day, to breathe the open air without doors. In endeavoring, however, to habituate the system to two degrees of temperature, one caution is of the most essential importance to be attended to, namely: never to remain inactive, either in the open air, or in cool apartments, long enough to induce a continued and unpleasant sensation of actual cold. This, in all cases, would effectually counteract the design proposed; and by frequent repetition, would, in all probability, ultimately be sufficient to injure the strongest constitution.

By attention to these precautions, those inflammatory diseases, for which cold only prepares the system, may be easily avoided.

COUGH

Is produced by the violent, and for the most part, involuntary motion of the muscles of respiration. It proceeds from various causes, and is therefore as variously to be treated.

The seat of every cough is generally in the breast, and the principle parts diseased, are the wind-pipe, and the ramifications, which are irritated by inflammation, obstruction, or foreign bodies introduced; but the morbid irritation may be in the adjacent part, as the diaphram, the stomach, the pleura, the œsophagus, the liver, &c. Thus, coughs attend pleurisies, wounds about the neck, inflammation of the liver, acrid matter in the stomach, or in the duodenum. Spasmodic disorders are often attended with a cough, the lungs suffering, either by consent from the source of the spasm, or becoming in their turn, the seat of that which produced the spasm in some distant part. The most frequent cause, however, is suppressed perspiration.

Coughs are generally at first, dry; but at last, expectoration comes on, and a hectic fever is the consequence. It sometimes happens, however, that a cough continues during a long life, without inconvenience; and though it does not lead to consumption, induces at last, asthma, or dropsy of the breast.

So far as coughs are connected with the state of the lungs, they have already been considered under the head of cold, and will be further noticed in treating of consumption, so that we shall here chiefly notice the symptomatic coughs.

The cure of the symptomatic coughs depends upon the removal of the original disease; hence, the absolute necessity in all chronic coughs, of investigating the cause before we can expect to find the appropriate remedy.

Sometimes, coughs have their origin in the stomach, affecting the lungs by sympathy, in which case, recourse must be had to emetics, aperients, stimulants, and tonics, with the view of cleansing and strengthening the organ primarily affected.

Should the liver be the seat of the disease, calomel in small doses, together with the nitric lac ammoniac, [*See Dispensatory*] constitute the best remedies.

It is very evident that coughs more frequently arise from hepatic affections than is generally suspected. The coughs of those who have long resided in warm climates, very generally proceed from a diseased liver. And we are fully persuaded those cases of hectics which have been cured by salivation, originated from scirrhus of that viscus.

Women, in the last months of pregnancy, are sometimes afflicted with a troublesome cough, but which will readily yield to small bleedings, at the same time keeping the bowels in a soluble state, and avoiding food indigestible and of a flatulent nature.

With children, a cough is occasionally produced by teething, as well as by worms; in both of which cases, it is to be cured by such medicines as are adapted to these complaints.

Coughs which attend the dyspeptic, chlorotic, and hysteric habits, are styled *nervous*. In this, as in other convulsions, increased irritability, with a less evident stimulus, or sometimes with a stimulus which escapes observation, induces a violent degree of the complaint. It is supposed, cough of this kind proceeds from repelled eruption, gout, or the translation of some disease to the lungs. In such cases much benefit will be derived from the warm and vapor bath, and when the secretion of the chest is greatly lessened and debility alone remains, we must endeavor to give tone to the system, by substituting the cold for the warm bath; by administering the cold infusion or decoction of bark; by tranquility of mind; by moderate exercise, together with a nourishing and generous diet. It is necessary, however, to observe in having recourse to the cold bath, should the patient feel chilly and uncomfortable, instead of feeling a universal glow over the system and being invigorated, it must not be repeated until the visceral obstructions are removed. Neither will it be proper to continue the use of the bark or any other tonic if it be found to check expectoration, or produce a difficulty of breathing. In several instances of unconquerable coughs of this kind, which have come under my notice, calomel, united with squills, or given alone in small doses to produce ptyalism, has effected a cure. The operation of calomel in the cure of obstinate coughs is, by producing a determination to the liver, and thus, by an increased secretion from that organ, securing more the vital parts and relieving those affected; and by exciting a new and general action in the arterial system, which shall transcend or supersede the existing morbid action.

When the cough is kept up entirely by irritation, arising from an increased secretion of mucus, under a weakened state of the lungs, a dose of paregoric at bed-time, will prove exceedingly beneficial; so the occasional use of some of the pectoral mixtures. [*See Dispensatory.*] In this state where inflammatory action has totally ceased, some of the balsamic medicines may also be employed with safety and advantage, and of these the tolu is the most valuable. It is a very grateful medicine, in consequence of its fragrant smell, and having a warm sweetish taste. The dose of the tincture or sirup to adults is a tea spoonful, in some mucilage or sirup, three or four times a day. Dr. Hill's balsam of honey is nothing more than the tincture of tolu sweetened with honey. Tar united with bark, and formed in pills, have been administered in doses of six or eight three times a day, with very good effects. In like manner tar water, taken to the quantity of a quart daily, has been found useful in coughs of long continuance.

In coughs of aged people, or in all cases where the lungs are heavily oppressed, and expectoration difficult, gum ammoniac in doses of ten or fifteen grains dissolved in mint water or ginger tea, or administered in the shape of pills, or, which is preferable, given in the form of the nitric lac ammoniac, [*See Dispensatory*] will not fail to produce expectoration and abate the distressing fatigue of cough.

From the variety of causes which produce coughs, it must be evident, the mode of treatment should vary, and here we would earnestly entreat every one who values the preservation of health, never to trust for the cure of any complaint, more especially affections of this kind, to patent medicines. Let it be impressed upon their minds, that most of these advertised, as infallible remedies for the cure of *colds* and *coughs*, are either perfectly *inert*, or really *hurtful*. And even supposing the medicine employed to possess the virtues ascribed to it, by the proprietor, can it be applicable to all the various forms and stages of the complaint, for which it is recommended? If in one state of a disease, judiciously administered, it prove a successful remedy, in another it must of consequence be in the highest degree injurious. [*See Preliminary Observations.*]

By resorting to medicines of this description they frequently let slip the favorable opportunity, when, by more rational means their health might have been easily restored, and their complaint thus gaining ground, under the use of an ineffectual remedy, will often become inveterate in its nature, and set all human skill at defiance.

How lamentable it is that so many valuable lives are yearly sacrificed by persisting in the use of quack medicines.

It is to the credulity of the lower class of society that they are most liable to be taken in by the infamous venders of poison, since they very generally prefer the use of a patent medicine to the advice of a practitioner. But how astonishing it is to find this fatal prepossession extend further; for we have frequently observed persons of higher order, and who it was expected would have had better understanding, persist in their use, and become a sacrifice to the delusion.

EPIDEMIC.

The attention of the medical gentlemen of our country, was drawn to a disease, which, during the three last winters, pervaded every state in the Union, and in most of them, according to the statements of the physicians, assumed every variety of shape, and required no little diversity of treatment. In some places, the lancet was used freely; and in others, remedies highly stimulant were administered. In spite, however, of the very different practice pursued, the disease continued its ravages, which, in many places, resembled those of the plague, sweeping whole families into the grave.

Extreme debility appears to have been the characteristic feature of the disease, for all accounts agree, that in whatever form it commenced, there ensued a great, and sometimes, a very sudden prostration of strength.

This alarming pestilence did not appear in the city of Washington, until the winter of the year, 1815, and even then, not so destructively as in many other places. Most of the cases which I saw, resembled very much the bilious pleurisy of our country. They commenced with chill and fever, accompanied with pain in the side and chest, with a dry skin and rather laborious respiration. But the cough was by no means so frequent and distressing, as in pleurisy or peripneumony. The eyes were wild and red, and the countenance uniformly indicated great anxiety and distress. In some instances the throat and head were very much affected. The pulse was full, though soft and readily compressible; indeed it sometimes indicated so much action that a practitioner not conversant with its peculiarity of type, would be very apt to treat the complaint as an inflammatory affection. This counterfeit character, however, did not continue long, for in a very short period it assumed the typhoid form.

Of the causes of the disease little has been ascertained. In common with other epidemics, its origin is involved in obscurity. As yet, we know only that it commences in cold weather, and is generally dissipated by the warmth of spring.

In the treatment of those cases which came under my care, I generally commenced with an emetic, and if this had no effect on the bowels, it was followed by a dose of salts, or an infusion of salts, senna and manna. During the operation of the cathartic, I sometimes found it necessary to support the patient, by having wine added to the gruel with which the medicine was to be worked off.

As the cure of this formidable disease depended principally on exciting perspiration, I lost no time after the operation of the medicine, in having sudorifics administered; and of this class, I found nothing superior to the Seneka and Virginia snake-root. [*See Materia Medica.*] In the insipient stage of this disease, I directed a strong decoction of the former to be taken in doses of a tea cup full every hour or two, and as the disease advanced, or the pulse began to sink, the latter was administered in the same manner. In addition to this, mulled wine or cider highly spiced, or hot toddy, was given very freely in those cases which indicated great prostration of power. It was also my uniform practice, to have a blister applied as speedily as possible on the breast or side, over the pained part. If the head were most affected, the blister was put between the shoulders: and when the throat was complained of, a cataplasm of mustard or garlic [*See Materia Medica*] was applied around the neck. Flannels, wrung out of hot spirits, in which, mustard-seed or red pepper had been steeped, were constantly applied to the extremities, and assisted greatly in producing the desired effect.

As the disease advanced, bark. conjoined with Virginia snake-root, proved a useful auxiliary in facilitating the cure.

Dr. Cutbush pursued a very similar plan, in the treatment of his patients, with the same fortunate result.

Many other practitioners bear testimony in favor of this mode of practice. The ingenious and learned professor Chapman, in his very interesting lecture on this epidemic, which I had the pleasure of hearing, stated, that, in no instance, did any patient die under his care, after perspiration was induced. It was his practice also, to combine with the diaphoretics, the most cordial stimulants; and of this class of remedies, he spoke highly of volatile alkali, in frequent and large doses.

As malignant as this disease was, it appeared to pay some respect to persons. For the rich, or rather those who lived generously, were seldom attacked with it; while the poor, and the intemperate, in those places where its ravages were most destructive, hardly ever escaped.

PHRENSY,

OR INFLAMMATION OF THE BRAIN.

Symtoms. A deep seated headache redness of the eyes and face, violent throbbing or pulsation in the arteries of the neck and temples, incapability of bearing light or noise, a constant watching or delirium, with picking the bed-clothes. The pulse, although sometimes languid, is generally hard, tense, and strong. The mind chiefly runs upon such subjects as have before made a deep impression upon it, and sometimes, from a sudden silence, the patient becomes, all of a sudden, delirious and quite outrageous.

An approaching phrensy is announced by intense continual watchings; or, if the patient sleeps, his sleep is interrupted and troubled: he starts, and is affected with terrible dreams, soon forgetting what is said. If, at any time, he returns an answer to a question, his fierceness and anger seem to be increased; a pain is constantly felt in the back part of the head, and, as the disorder increases, the eyes become more fixed and red, tears at the same time flowing from them. The tongue is dry, rough, and of a yellow or black colour, the face of a deep red, and the pulse small, quick, and hard.

Phrensy is distinguished from mania, by the sudden attack, the violent fever, pain in the head, and an evident exciting cause; and from that species of delirium which occurs in low fevers, unaccompanied with inflammation, by the appearance of the countenance and eyes; for, in true phrensy, the features are rather enlarged than shrunk, and the eyes protuberate and sparkle; whereas, in the delirium supervening to low fever, the face is pallid, the features are shrunk, and the eyes pearly.

CAUSES. Exposure of the head to the scorching rays of the sun; to deep and long continued thinking; excessive drinking; suppression of usual evacuations; concussion of the brain, and whatever may increase the afflux of blood to the head.

TREATMENT. Blood-letting is the "*anchor of hope*" in this disease, which should be employed copiously on its first attack, and repeated as the symptoms and strength of the patient will permit. Immediately after bleeding, a dose of calomel, followed by a large dose of salts, or some cooling purge must be given. Ice pounded and put into a bladder, or folds of cloth wet with vinegar or cold water, should constantly be applied to the head and temples; and if the symptoms prove obstinate the head ought instantly to be shaved, and the whole of the scalp covered with a blister. When the pulse has been reduced by blood-letting from the arm, if the pain in the head continue severe, let cups or leeches be forthwith applied to the temples, forehead, and back of the head.

Bathing the feet and legs in warm water, or wrapping them up in flannel wrung out of hot water, is also of great service, by producing a revulsion of blood from the head. With the same view sinapisms should be employed.

One of the antimonial or camphorated powders [*See Dispensatory*] given every two hours, or large portions of nitre dissolved into the patient's drink, will be useful.

If the disease be occasioned by a sudden stoppage of evacuations, every means to restore them must be tried. In all inflammatory affections of the head, a copious discharge from the intestines will be found highly beneficial, by diverting the humors from the head; and when we cannot employ purgatives, laxative clysters should be used.

To assist also in diminishing the determination of the blood to the head, the patient should be kept as near the erect posture as can easily be borne.

In symptomatic phrensy, particular attention should be paid to the primary disease which has given rise to it, and the treatment ought to be varied according to the nature and progress of the disorder which has occasioned it. In its early or inflammatory stage, copious bleeding will be necessary; but if it has been of some continuance, drawing blood from the temples, by means of leeches, or cupping with scarifications will be preferable. The application of a blister to the neck or between the shoulders is not to be omitted, as it is well adapted, by keeping up a steady discharge, to lessen the accumulation. When the accumulation is removed, its effect, unsteadiness of mind, often continues. This is sometimes supposed to be owing to remaining inflammation, and the violent evacuations are with little discrimination employed; a plan which increases instead of mitigating the disease; for it depends on the too great previous excitement. We have found no mode of conduct particularly serviceable, except absolute rest of mind, with moderate exercise of body. The camphor, bark with valerian, and some other medicines of this tribe, with cold bathing, and gentle alvine evacuations, seem occasionally to have contributed to the relief; but from time alone a cure may be expected.

Regimen. The diet should be of the lightest kind, as ripe fruits, with dilutent drinks, such as cold water, tamarinds and water, &c. freely used. The patient to be kept in a dark room, as cold and quiet as possible, avoiding all irritating causes, and breathing a current of fresh air.*

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*It was of this disease, generally termed *a stroke of the sun*, that the brave General Greene, an officer second only to Washington, died at Mulberry Grove, his country seat near Savannah. A *true Republican*, he delighted in exercise, particularly that of gardening, of which he was so fond as sometimes to continue it under the meridian blaze. It was in this garden that the last summons found him. His honorable friend, E. Telfair, Esq. had often cautioned him against imprudent exposure to the Georgia suns: but believing that he possessed the same nerves that sustained him in the hot field of Monmouth, he still pursued his favorite exercise: but while busily adorning the soil which his own valor had so gloriously defended, a sun-beam pierced his brain, and in a short time translated to heaven as *noble a spirit* as ever fought under the *Standard of Liberty*.

*In 1818, the medical community lost, by this inexorable disease, John Syng Dorsey, M. D who, by his acquirements and performances, had attained to very great distinction, as a physician and teacher. Having been adjunct professor of Surgery, with his venerable uncle, Dr. Physic, in the medical school of Philadelphia, and filled with great brilliancy the chair of Materia Medica, he was unanimously elected to the chair of anatomy, as successor of professor Wistar; and, but a few days before his lamented death, had delivered, with great eclat, his introductory lecture to his intended course. The chair, to which he had been promoted, was long filled by Dr. Shippen and Dr Wistar; with what success and popularity, need not here be particularised. The generous and benevolent Shippen has always been accounted one of the fathers, and Wistar not the least magnificent pillar of that *Scientific Edifice*, which has contributed a full share of glory to our nation.—The immediate predecessor of Dr Dorsey, was admired, not only for his professional qualities, but for his charming social virtues, and uniformly dignified, and polished hospitality. His house was wide open as the benevolence of his heart; and his daily companies comprised the learned of our country, and the enlightened visitors from Europe. On his death, he left vacant the chair of anatomy in the University of Pennsylvania, and the presidency of the Ameri-

QUINSY,

OR INFLAMMATORY SORE THROAT.

Symptoms. Is distinguished by a sense of heat, pain and tightness in the fauces and throat, accompanied by a difficulty of swallowing, particularly fluids. In general, the inflammation begins in one tonsil, a gland on each side of the palate, then spreads across the palate, and then seizes the other tonsil. When the inflammation possesses both sides, the pain becomes very severe, and swallowing is performed with extreme difficulty; but if it attack the upper part of the wine pipe, it creates great danger of suffocation.

Causes. Cold, wet feet, throwing off the neckcloth, or drinking cold water when overheated.

Treatment. The same rules are to be observed, in this as in all cases of disease highly inflammatory, such as bleeding, purging, and other cooling means. The extent to which these are to be used, can only be ascertained by the violence of the disease and the constitution of the patient; but from the danger of this complaint, they should be early and freely employed, particularly if there exist any fever.

Local applications have also their good effects, and in slight cases, are often sufficient to remove the inflammation. Re-

can Philosophical Society. To the former, Dr. Dorsey, one of his favorite pupils and hourly companions, was unanimously elected, and carried with him the confident expectation of every one, that it would not only be reputably sustained, but adorned by his various genius, attainments, and popular eloquence. To say nothing of the great disappointment which his very sudden death created in the University, extending alike to the trustees, faculty, and students, we should have left more than enough to fill up this passing tribute of a friend, in the recollections of the infinitely varied attractions of his private character. He was manly and generous; kind and benevolent; honorable and faithful; gay and good-natured; instructive and entertaining; and died, as all like him, deeply and universally regreted.

ceiving the steams of warm water, or vinegar and water, through a funnel or spout of a tea-pot, will give great relief. Much benefit may be derived from the use of gargles, commencing with the *common*, and after the inflammation is considerably abated, using the *astringent* gargle. [*See Dispensatory.*] At this stage of the disease gargles of port wine, or brandy and water, answer every purpose, to restore the tone of the fibres, relaxed from over distension.

External applications are, likewise, of great use. In slight cases it will be sufficient to have the neck rubbed twice or thrice a day with the volatile or camphorated liniment, [*See Dispensatory*] and a piece of flannel applied. The embrocation will be rendered still more stimulating by adding a small portion of the tincture of cantharides. But in those cases where the inflammation is considerable, the early application of leeches, or a blister or cataplasm of mustard around the neck, is most to be relied on; which, by exciting external inflammation, will lessen the internal. Onions [*See Meteria Medica*] are also excellent when applied externally in this disease.

In addition to those remedies, the antimonial mixture or decoction of rattlesnake root, [*See Materia Medica*] given in such doses as will excite perspiration, is much to be depended on, when the inflammatory symptoms run high, and before the febrile symptoms are any way violent, the timely exhibition of an emetic often proves extremely useful, and sometimes checks its complete formation.

Should these means prove ineffectual, and there appears a tendency to suppuration, it ought to be promoted by frequently taking into the fauces the steams of warm water, or applying warm poultices to the neck. As soon as a whitish tumor with fluctuation of matter is discovered, it should be opened by the lancet, and then the *detergent* gargle [*See Dispensatory*] should be used. If in consequence of the largeness of the tumor the patient cannot swallow, he must be supported by nourishing clysters of broth, gruel, or milk.

If persons, as soon as they discover any uneasiness in the throat. were to use the nitrous lozenges. [*See Dispensatory*] or small portions of nitre as recommended under the head of cold; bathe their feet in warm water; apply flannels moistened with one of the above liniments; and keep comfortably warm, this disease would seldom proceed to a great height.

Regimen. With respect to the regimen, it must be of the cooling kind, except the application of cold. Barley or rice water, flaxseed tea, and such like, rendered agreeable to the palate by the addition of jelly or honey, should be often taken, although difficult to swallow: for the pain consequent on swallowing is more owing to the action of the inflamed parts, by which deglutition is performed, than by the passage of the liquid which is swallowed.

Prevention. For the prevention of this disease, the directions should be adverted to, which have been given under the head of *cold*. Where it becomes habitual, an issue behind the neck does often succeed in preventing its recurrence.*

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*Well knowing how deep an interest the world always takes in great *men*, I trust it will not prove unacceptable to my countrymen, to learn that the above malady, the *Quinsy*, was the messenger whereby God was pleased to introduce into his own presence, the soul of that purest of human beings, GEORGE WASHINGTON.

On the afternoon of the 13th December, 1799, riding out to one of his farms, he was caught in a driving rain, which, soon turning into a snow storm, deposited a considerable quantity of snow betwixt his cravat and neck. Long accustomed to brave the inclemencies of weather, he paid no regard to this circumstance; but having brushed off the snow on his return, he supped and went to bed, as usual. Some time before day, he was awakened with the sore throat, and difficult breathing, which constitute *quinsy*. A faithful domestic, who always carried a lancet, was called up and bled him, but without affording any relief. About day break, my near *relative* and *honored preceptor*, Doctor James Craik, of Alexandria, the inseparable *friend* and *physician* of WASHINGTON, was sent for, who reached Mount Vernon about ten o'clock. Alarmed at the general's symptoms, he communicated his fears to Mrs. WASHINGTON, who immediately despatched servants for Doctors Dick and Brown. Nothing was omitted that human ingenuity and skill could do for a life so dear, but all in vain. It appeared in the result, as the *illustrious sufferer* previously declared, that *his hour was come*.

PUTRID SORE THROAT.

This is a contagious disease, and appears more generally in autumn, after a hot summer. It oftener attacks children, and persons of relaxed habits, than those of vigorous health.

Symptoms. It generally comes on with a sense of giddiness, such as precedes fainting, and a chilliness or shivering like that of an ague fit, soon followed by a great heat, interchangeably succeeding each other during some hours, till, at length, the heat becomes constant and intense. The patient then complains of an acute pain in the head, of heat and soreness in the throat, stiffness of the neck, anxiety and nausea, with vomiting and delirium. On examining the mouth and throat, the uvula and tonsils appear swelled, and are of a deep red, or shining crimson color; soon after covered with white or ash-colored spots, which, in a short time, become ulcerated. The pain in swallowing is slight, in proportion to the degree of inflammation. The patient often complains of an offensive putrid smell, affecting the throat and nostrils, sometimes occasioning nausea, before any ulcerations appear. On the third day, or thereabouts, a scarlet eruption is generally thrown out on the skin; first, on the face and neck, and then, over the whole body and extremities.

From the first attack of the complaint, there is considerable fever, with a small, frequent, and irregular pulse; and every evening, there appears a manifest exacerbation, and in the morning some slight remission, together with a debility and general loss of strength.

In slighter kinds, the course is not very different from that

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To oblige Mrs. Washington, he continued to take medicines offered him, till the inflammation and swelling obstructed the power of swallowing; when he undressed himself and went to bed, as he said, "*to die.*" About half an hour before he died, he desired his friends to leave him, that he might spend his *last moments with* God. Thus, after filling up life with glorious toils, he went to rest, "*in a good old age ladened with riches and honor.*"

"Let the poor witling argue all he can,
"It is religion still that makes the man."

of the inflammatory species, though seemingly slight, with alternate chills and heats, pain in the head. &c. till the debility appears, when every other bad symptom immediately follows. Every sore throat should, therefore, be carefully examined.

The putrid sore throat sometimes attends on measles which are of a malignant nature.

In a disease which runs its course generally in less than five, always in seven days, no prognostic is to be depended on; but a more florid appearance in the throat, and a more healthy aspect of the edges of the sores.

Causes. The same which give rise to the nervous or putrid fever, as bad air, damaged provisions, &c. &c.

Treatment. The indications of cure are similar to those of the nervous or malignant fever, as it is analogous in some essential circumstances to that disease: to which we must add the healing of the ulcers.

Therefore, on the first attack of the putrid sore throat, an emetic may be given, which may be repeated on the next day, and followed by a mild cathartic. Afterwards it will be necessary to recruit the patient with bark and wine, or milk toddy.

The ulcers in the throat demand early and constant attention, as a loss of substance here cannot but threaten much danger to life, or injury to the parts, if the patient should survive: hence the use of gargles must be obvious to every one. When the disease is of a mild aspect, the *common* and *astringent* gargles, [*See Dispensatory*] frequently used, are often sufficient: but when the symptoms are urgent, the tendency to putrefaction great, the sloughs large, and the breath offensive, the *detergent* gargle must immediately be resorted to. Independently of gargling the throat, it is essential that some of the same liquid be injected into the fauces, with a small syringe.

In young subjects, this method is the more necessary, as they do not know how to manage a gargle to any purpose, did the soreness of the parts permit them to do it, When the throat is painful, the application of a piece of flannel moistened with the volatile liniment spirits of camphor, or tincture of red pepper, to excite a slight degree of inflammation externally will be attended with good effect. But blisters, from the prevailing disposition to putrefaction, must be carefully avoided.

According to Dr. Currie, the affusion of cold water is also beneficial in this disease. It was his practice, after a copious affusion, to have his patient wiped dry and put into bed, and given about eight ounces of wine, if an adult, and so in proportion to children; which plan it appears was very successful, for in fifty out of sixty-two cases, where he had adopted it at the commencement of the disease, he succeeded.

Dr. Thomas states, that, when he was in the island of St. Christophers, in the year 1787, this disease prevailed a universal epidemic among children, and a vast number of them fell martyrs to it, in spite of the utmost endeavors of the profession to save them; when at last the most happy effects were derived from the use of a remedy, the basis of which was cayenne pepper. The medicine was prepared by infusing two table spoonfuls of this pepper and a tea-spoonful of salt in half a pint of boiling water, adding thereto the same quantity of warm vinegar. After standing for about an hour, the liquor was strained through a fine cloth, and two table-spoonfuls were given every half hour.

The speedy and good effects produced by the use of this medicine, in every case in which it was tried, evidently points out the utility of giving warm aromatics, which will bring on a timely separation of the sloughs, as well as other antiseptics, to correct the tendency in the parts to gangrene. Since the period above mentioned, many practitioners bear testimony in favor of caynne or red pepper, [*See Materia Medica*] in the putrid sore throat. Pepper-corns constantly bitten and the saliva swallowed, have been highly useful.

The grand objects to be kept in view, in this malignant disease, should be, to check or counteract the septic tendency which prevails, to wash off, from time to time, the acrid matter from the fauces, and to obviate debility. With this view, give bark in large doses every two hours in ginger tea, or a strong infusion of Virginia snake-root. These may be washed down with punch, milk toddy, porter or cider. It will be necessary also to make a liberal use of wine, which may be given to persons unaccustomed to it from one to three quarts within twenty-four hours. Even sleep is less necessary than wine and bark, and should it continue above three hours, the patient must be awakened, for the loss of time cannot be regained. The quantity of the wine and bark must be regulated by the effect. If we gain nothing in the first thirty-six hours, we may depend on a fatal event; if we lose ground in twenty-four hours, our hopes will be inconsiderable. In addition to these remedies we would earnestly recommend bathing the patient frequently in a strong decoction of oak bark, with one fourth whiskey. This valuable remedy should always be resorted to with children, as it is often impracticable to prevail on them to take the bark in any form. It is also advisable with such patients to administer this decoction in a clyster; or use as an injection two drachms of Peruvian bark with a gill of thin gruel or barley water, which should be given every three or four hours to young children; and about half an ounce, in a proportionate quantity of the liquid to those of eight or ten years of age. Should the first clyster come away too soon, from five to twenty drops of laudanum may be added to the subsequent ones.

Should any particular symptoms arise during its progress which may tend to aggravate it, such as vomiting, diarrhœa, hemorrhage, or suppression of urine, the same remedies must be resorted to as advised under the head of Nervous Fever.

REGIMEN. Medicine will prove of little efficacy, if the animal powers be not supported by proper nourishment: the attendants must, therefore, constantly supply the patient with arrow root, sago, panado, gruel, &c. to which may be added such wine as is most agreeable to the palate.

Ripe fruits are peculiarly proper, and fermented liquors, as cider, perry, &c. should constitute the chief part of the patient's drink. But previous to taking any nourishment, gargles and injections should be very carefully employed; for cleansing away the sharp, acrid humor from the mouth and throat, to prevent as much as possible its being swallowed. The patient should be so placed in his bed, that the discharge may freely run out at the corners of the mouth, and great attention should also be paid to cleanliness.

The feelings of a tender parent, who views the progress of the disease on a beloved child, cannot but excite our tenderest sympathy. Too often, from an ill-judged tenderness to the child, the parent will not suffer this dreadful disease to be checked by medicines. But it should be remembered, that although the pain is for a moment increased by these harsh, but necessary means, yet the quantity of pain must, on the whole, be much lessened, and besides, which is the sweetest consideration of all, a precious life thereby saved.

Prevention. The same means as devised in the nervous fever, to correct infectious air, must strictly be attended to here, and especially with a view to prevent the progress of this disease.

FALLING OF THE PALATE.

The falling down, or elongation of the palate, is attended with a sense of tickling in the fauces, and soreness at the roots of the tongue.

Treatment. Avoid speaking, and gargle the throat with the astringent gargle, [*See Recipe* 41] or when there is little or no inflammation, apply salt and pepper by means of the handle of a spoon.

If fever accompany this affection, bleed and give cooling purgatives, using nothing but a vegetable diet.

MUMPS.

A contagious disease, affecting the glands and muscles of the neck externally.

Symptoms. Slight fever, which subsides upon the appearance of a tumor under the jaw, near its extremities: sometimes only on one side, but more frequently on both. It increases till the fourth day, and then declines gradually.

Treatment. This disorder is often so slight as to require very little more than to use a spare diet, and keep a laxative state of the bowels. If, however, there be much fever and pain in the head, it will be necessary, in addition to the above, to bleed, blister behind the neck, and take freely of diluting drinks, as flaxseed tea, barley or rice water.

It has been usual to keep the neck warm, but this is improper. It will be found, generally, those who have been most neglected, have been soonest restored to health.

There is a singular peculiarity now and then attending this complaint; for sometimes the swelling of the neck subsides, the testicles of the male, and breasts of the female, are affected with hard and painful tumors, and frequently when one or other of these tumors has suddenly been repressed, a delirium of the milder sort occurs. In this event, bleed moderately, apply a blister between the shoulders, give a dose of calomel, and endeavor to reproduce the swelling by warm fomentations and stimulating liniments.

When these tumors are painful, every precaution should be used to prevent suppuration from ensuing, by bleeding, cathartics, antimonial powders, or mixture, dilutent drinks, and by cooling and discutient applications, as cloths wet with lead water [*See Dispensatory*] and cold vinegar and water. It is necessary, also, that the swelled testicle should be supported by a suspensory bag.

SORE EYES.

A disease so well known as to render all description of it unnecessary.

Causes. External violence done to the eye-lids, or to the eye itself; extraneous bodies under the eye-lids, as particles of dust and sand—acrid fluids or vapors—exposure of the eyes to a strong light, and night watching, especially sewing, reading or writing by candle light.

Inflammation of the eyes may also be the consequence of bad humors in the system, or may accompany other diseases of the eyes, and of the neighboring parts, such as the turning inward of the eye-lids, or styes growing on them.

Treatment. When the disease is moderate, and the exciting cause no longer exists, the cure is perfectly easy, requiring little more than external application, such as washing the eyes frequently with warm milk and water, mixed with a little brandy, or using for a lotion, mucilage of sassafras, [*See Materia Medica*] simple rose water, or about eight grains of white vitriol dissolved in a gill of spring water.

But in more severe affections, bleeding, blistering behind the ears, on the temples, or nape of the neck, with gentle purgatives and the cooling regimen, will be found eminently useful. The greatest benefit will also result from soft linen bandages wet with cold water, applied to the eyes, and frequently renewed entil the heat and inflammation have subsided. Soon as this is affected, use the anodyne eye-water, [*See Dispensatory*] or two or three drops of laudanum dropped into the eye, or bathe the eyes in cold water, or brandy and water, to restore the tone of the parts.

In all inflammations of the eyes from common causes, the remedies above specified will generally succeed; only we should be careful not to use any of the more stimulant applications, till the inflammation begins to abate of its violence, otherwise they will rather increase than subdue the malady.

In obstinate cases, there is no remedy so effectual as a blister plaster immediately over the eye. For this very important discovery, I am indebted to the adjunct Professor of Surgery, Dr. Dorsey, whom, on his own polite invitation, I accompanied to the hospital, where he showed me a case in point. A man, whose inveterate ophthalmia, after obstinately resisting all the usual applications, was completely cured by a single blister, about an inch and a half in circumference, employed in this novel way.

When the pimples on the eye attend an inflammation and suppurate, they should be opened with the point of a lancet, and washed with the solution of white vitriol.

If the eye remains very weak after the inflammation abates, the best applications are the alum curd, [*See Dispensatory*] which may be spread thin on a rag, and applied over the eyes every night; and a solution of alum in the proportion of a drachm to half pint of water; to which may be added the white of one egg. Bathing the face and eyes every morning in the coldest water, will also be found exceedingly useful.

Sometimes the edges of the eye-lids become swelled and ulcerated, and from the discharge puts on the appearance of fistula lachrymalis. When the disease is violent an adhesion of the eye to the upper lid sometimes takes place, which should be carefully separated by raising the lid, and dissecting cautiously with a round-edged scalpel. In chronic affections of this kind, the application of an ointment prepared by mixing a scruple or half a drachm of white vitriol with half an ounce of fresh hogs lard to the eye-lids, is sometimes alone successful; but when the disease is violent, the mercurial ointment is required to give a more active stimulus. If the ulcers are not cicatrized by these means, the solution of blue vitriol, in the proportion of fifteen grains to an ounce of water, will be useful. Each application must be made by means of a camel-hair pencil, and the ointment softened by a gentle heat.

When the ointments are used, they must be applied in the evening, and continue on the part all night; the solution must be used two or three times a day, and the redundant fluid washed away with a syringe and a little cold water. Laudanum may occasionally be employed. In the general conduct of all these remedies, they should excite on their application, a slight irritation, by which the puriform secretion is at first increased; but by degrees the edges of the eye-lids become soft, the glands lessen, the internal surface of the palpebræ become smooth, and of its usual paleness.

Inflammations are sometimes followed by specks on the eye, which, if not early attended to, will obstruct the sight. They may be removed by daily blowing into the eye, through a quill, a little of the best loaf sugar, finely powdered. When this does not succeed, unite to the sugar an equal quantity of white vitriol or tutty, finely levigated, or blow calomel into the eye.

When this disease is occasioned by morbid humors in the habit, as the scrophulous or venereal, we must use the remedies pointed out in the treatment of those complaints. If dirt or foreign matter be lodged in the eye, it may soon be removed by passing a small hair pencil between the eye-lids, and the ball of the eye.

The defending of the eyes from the light by confinement in a dark room, or wearing a piece of green silk over them, is a caution, which, though too obvious to be pointed out, is too important to be omitted.

Prevention. To persons liable to this complaint the following instructions may be useful. When the eyes are weak, all painful and fatiguing exertion of them should be carefully avoided, such as looking at the sun, sewing or reading by candle light, or sitting in a smoky room.

If there be well grounded suspicion that the inflammation of the eyes originates from the suppression of any of the customary evacuations, those evacuations should, as soon as possible, be restored; and until then, an issue or blister on the neck should be kept running, as a necessary substitute.

PLEURISY.

Symptoms. An acute pain of the side, which reaches to the throat, in some to the back, and others to the shoulders, but in general, is seated near the fleshy part of the brest, with a high fever, hard and quick pulse, difficulty of breathing, and a teazing cough, sometimes moist, but most frequently dry. The seat of the inflammation, and consequently of the pain, may vary in different cases, but this is not of much importance, as the same mode of treatment is required in inflammations of the viscera contained in the cavity of the chest, as the membrane which invests them.

Causes. The pleurisy, like other inflammatory diseases, proceeds from whatever obstructs the perspiration, as exposing the body to the cold air when overheated. It may likewise be occasioned by whatever increases the circulation of the blood, as violent exercise, or an imprudent use of ardent spirits.

Treatment. In the cure of pleurisy or inflammation of the viscera, our success depends on subduing the violent action of the vessels, by bleeding, blistering, and employing such remedies as are calculated to keep the bowels open, and to determine the fluids to the surface.

Hence, at the onset of this disease, a large bleeding is always necessary, succeeded by a dose of salts, senna and manna, castor oil, or some cooling purge, and so long as the blood exhibits a sizy crust on its surface, when cool, and the violence of the symptoms continue, the lancet should be used once or twice a-day, with this exception, that after a free expectoration has commenced, it will be less necessary.

A blister over the pained part, after the pulse has been reduced by bleeding, is by no means to be omitted; and if the pain be obstinate, when the blister on one side ceases to discharge freely, apply another on the other side. When blisters cannot be obtained, some substitute must be resorted to, as a cataplasm of mustard and vinegar. Warm cabbage leaves, or a bladder nearly filled with warm water, applied to the affected side, and repeated as often as it becomes cold, will sometimes afford a little relief.

During this treatment, the patient should take freely of warm diluent drinks, as flaxseed, balm, or ground ivy teas, barley or rice water, to which may be added a little of the juice of lemons.

The decoction of pleurisy, or seneka or rattlesnake root, [*See Materia Medica*] exhibited in doses of one or two tablespoonfuls every two or three hours, abates the febrile heat, and produces expectoration. The antimonial powders or mixture, or camphorated powders [*See Dispensatory*,] also produce these beneficial effects. When these medicines are not at hand, portions of nitre dissolved in the patient's common drink, and ipecacuanha exhibited in such doses as will keep up a nausea at the stomach, without vomiting, will answer every purpose.

Inhaling the steam of hot water from the spout of a teapot, or applying a large sponge dipped in warm vinegar, to the mouth and nostrils, will be beneficial. Flaxseed sirup [*See Materia Medica*] is a valuable medicine in this complaint, in allaying the cough, a symptom exceedingly distressing. When this is not convenient. make use of some of the pectoral mixtures, as advised under the head of cold. In the advanced stage of the disease, when the inflammatory symptoms are almost wholly abated, and the cough proves the chief cause of pain and loss of sleep, then opiates may be given with the greatest advantage.

It should be observed in the exhibition of opiates, that if they be administered in the commencement of inflammatory disease, before the necessary evacuations are made, they increase the inflammation, and consequently injure the patient; but if given near the close of such maladies they are of the greatest service, and complete the cure. When perspiration is obstracted, they should be coupled with some emetic drug, as in the form of the anodyne sudorific draught or bolus, [*See Dispensatory*] but when this is not the case, opium or laudanum alone should be administered, and that in small doses, when the patient is much debilitated from previous evacuations. A half grain of opium, or fifteen drops of laudanum, or thirty drops of paregoric, given about an hour before the evening exacerbation, alleviates the symptoms, and if repeated for a few evenings, gradually increasing the dose, ensures the cure.

If the pulse sinks and becomes languid, blister the extremities, and give six or eight grains of volatile salts every three hours with mulled wine. The bowels, in the course of the disease, must be kept moderately open, by emollient injections or mild laxatives, as castor oil, or the cathartic mixture.

The bastard pleurisy is often confounded with true pleurisy. It consists of a rheumatic inflammation of the intercostal muscles, often of the other muscles, of the breast or abdomen. The disease is distinguished by external soreness, and is relieved by bleeding, blistering and exhibiting the seneka-root in decoction.

Regimen. In no disease is a strict abstinence more necessary than in this, since, in proportion to the nourishment taken, will be the increase of the blood, and consequently of fever. Nothing but diluent drinks, as toast and water, barley water, bran, or flaxseed tea, ought to be allowed, until the violence of the disease is subdued; and these liquids should be taken often, but in small quantities at a time and never cold. When nourishment is required, the lighter kinds only should be used, as arrow root, sago, panado, &c. After recovery, great care must be taken to prevent a relapse; the sparest diet should therefore be used; the inclemencies of the weather carefully guarded against; moderate exercise employed, and the chest protected from the action of cold, by wearing flannel next to the skin. In this state of convalescency, a prudent use of wine with bark or columbo, will assist digestion, and give tone to the system generally.

PERIPNEUMONY,

OR INFLAMMATION OF THE LUNGS.

Symptoms. Febrile affections, succeeded by difficulty of breathing, cough, and obtuse pain under the breast bone, or betwixt the shoulders, increased on inspiration. A sense of fulness and tightness across the chest—great anxiety about the heart, restlessness, loss of appetite and sleep—the pulse quick, sometimes hard, and seldom strong, or regularly full; the breath hot, the tongue covered with a yellowish mucus, and the urine turbid. From the obstruction to the free passage of blood through the lungs, the veins of the neck are distended, the face swollen, with dark red colour about the eyes and cheeks. The pain in the chest is generally aggravated by the patient lying on the side most affected, and very often he can lie only on his back.

Causes. Cold, obstructing perspiration and thus producing a morbid determination to the lungs, or violent efforts, by over-distension.

Tteatment. Such is the delicate structure of the lungs, that they will not sustain inflammatory attacks many hours before their important functions are destroyed, or so much mischief produced, as to lay the foundation of consumption.

The antiphlogistic plan, therefore, as advised in the pleurisy, for the *resolution* of the disease, should be put into immediate operation, and not by degrees, as is often the case, by which many lives are lost, but should be carried to the utmost extent, particularly the taking away of blood in considerable quantities from the arm.

We would remark, however, although the evacuating plan is indispensably necessary in the early stage of the disease, yet it should not be continued too long, for the truly salutary discharge is by expectoration; and if the strength is too far reduced, this will be prevented.

INFLAMMATION OF THE

LIVER,

Is of two kinds, the acute and chronic; and consequently, requires variation in the mode of treatment.

Symptoms. The acute is marked by a pungent pain of the right side, rising to the top of the shoulder, something like that of the pleurisy, attended with considerable fever, difficulty of breathing, dry cough, and often bilious vomiting.

The chronic inflammation of the liver, is usually accompanied with a morbid complexion. The symptoms are sometimes very obscure, and confined rather to the common marks of stomach complaints, as flatulence and frequent eructations. The appetite, in consequence, fails, and occasional uneasiness or pain is felt in the region of the liver extending to the right shoulder, the characteristic of the disease. An obscure fever prevails, which is generally worse at night, inducing langor, want of sleep, and much oppression. The patient has generally clay-coloured stools, and high-coloured urine, depositing a red sediment, and ropy mucus. In the progress of the malady, the countenance seems livid and sunk, and the eyes of a dull white or yellowish hue. Under these symptoms, the body becomes gradually emaciated, while, in the region of the liver, is felt a sense of fulness, with a slight swelling and difficult breathing, attended with a hoarse, dry cough, particularly aggravated when the patient lies on the left side.

As the disease advances, dropsical symptoms, accompanied with jaundice supervene, and under these complicated maladies, the sufferer sinks. Sometimes an abscess opens externally, which, if it do not effect a cure, at least prolongs the life of the patient.

Causes. Violent and repeated shocks from vomits—sudden changes in the weather, but especially, cold nights after very hot days—sitting in a stream of air when overheated—drinking strong spirituous liquors, and using hot spicy aliment.

Treatment. In this, as in all other cases of visceral inflammation, the same means to take off inflammation, as advised in the pleurisy, should be carefully observed. And as it is an object of the first importance, to prevent the formation of matter, we should adopt these means as early as possible, to produce resolution, the only salutary termination.—Scarcely any complaint requires such prompt and copious blood-letting, as acute inflammation of the liver. After the acute stage is over, we may consider the affection of a chronic nature, and the mode of treatment must be regulated accordingly.

In the chronic species of this disease, the cure depends principally upon mercury, which may be employed in the early stages of the complaint. The mercury may be introduced in tho system, either by taking one or two of the mercurial pills, night and morning, or by rubbing as frequently on the part affected, the ointment about the size of a nutmeg, continuing the one or the other, until a ptyalism is produced, or the disease is subdued.

During this course, the use of the tonic powders, or pills, [*See Dispensatory*] or bark and snake-root, when febrile symptoms have abated, will greatly hasten the cure.

The nitric acid, with patients who are scorbutic, or much debilitated, is far preferable to the calomel, on account of its antiscorbutic and tonic powers. It should be given to the extent of one or two drachms daily, diluted with water, in the proportion of one drachm of the acid to a quart of water. At first, it ought to be given in small doses, and frequently repeated, and the dose gradually increased, as circumstances require. This medicine, like calomel, must be continued until the mouth becomes affected, the salivary glands enlarged, and their secretion increased; and when this takes place, the disagreeable symptoms will be removed, and the patient, from being debilitated, becomes healthy, vigorous, and cheerful.

My own experience of the efficacy of the nitric acid in chronic affections of the liver, induces me to speak well of it; and I am happy to add, it was a favorite remedy of that celebrated anatomist, and distinguished physician, professor Wistar, in this distressing disease, particularly when there was an enlargement of the liver.

Obstructions and indurations of the spleen, bear some resemblance to a diseased liver, and are very prevalent in low, marshy and aguish situations. Their treatment consists in the use of the same means recommended for the cure of this disease.

Regimen. The food should be easy of digestion, such as veal, lamb, fowls, or fresh beef. Watercresses, garlic, and other pungent vegetables are useful. A change of climate, and moderate exercise in the open air of the country, is both agreeable to the patient, and very salutary.*

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*Of this formidable disease, died, on the 29th October, 1823, Charles Carroll, of Bellevue, Maryland. This inestimable friend was extensively known, and wherever known, was justly esteemed for his intelligence and moral excellence. Whatever of manly grace and virtue belongs to the human character, shone conspicuously in him. An affectionate husband and a kind parent, a generous friend and a polished gentleman; he stood among his fellows, a bright example of what a man should be. His philanthrophy prompted him to devote a considerable portion of his fortune, which was, at one time ample, to the alleviation of the distresses of his fellow men. In more than one instance, as the author is able to testify, individuals owed much of their prosperity and happiness in life to his unsought bounty. Soon after the late war, Mr. C. removed from this city, where he had resided several years, to Gennessee, New York. Early in the year 1822, he was induced to accept an office under the government of the United States, in Missouri. In that state, he contracted the disease, which, eighteen months afterwards, terminated fatally; and there, too, by a calamitous coincidence, Henry Carroll, (formerly private secretary to Mr. Clay, while minister at Ghent) met with an untimely and violent death. The memory of Mr. Carroll's worth is deeply engraven on the hearts of all who knew him, and his name will, hereafter, stand high in the annals of virtue and benevolence.

INFLAMMATION OF THE

STOMACH.

Symptoms. Acute pain in the stomach, always increased upon swallowing even the mildest drinks. Inexpressible anxiety, great internal heat, something like heart-burn, constant retching to vomit—and, as the disease advances, the pulse becomes quick and intermitting—frequent hiccoughs, coldness of the extremities, and the patient is soon cut off.

Causes. Acrid or hard and indigestible substances, strong emetics, or corrosive poisons taken into the stomach, or drinking extreme cold liquors, while the body is in a heated state. It may also be occasioned by external injury.

Treatment. Unless the inflammation can be resolved in the very beginning, it rapidly terminates in a mortification.

Therefore, a violent pain in the region of the stomach, with sickness and fever, should always be very seriously attended to. Copious and repeated bleedings, not regarding the smallness of the pulse, are absolutely necessary, and is almost the only thing that can be depended on. In no inflammation is the immediate use of the warm bath so necessary as in this, which attacks at once the *"throne"* of life. If a better bathing vessel cannot be had, a barrel or half hogshead, filled with warm water, about blood heat, will do. Let the patient be instantly put in it, covering the top with a blanket. Keep him in as long as he can bear it, and when taken out and wiped dry with warm cloths, he should immediately have a large blister or cataplasm over the stomach. The bowels must be kept open by the mildest clysters, as water gruel, or weak broth, with the addition of a little salt petre, and sweet oil or sugar. These injections answer the purpose of internal fomentations, and also nourish the patient, who is often unable to retain any food, or even drink, upon his stomach.

⁂ On the preceding page, the reader is requested to supply an omission which occurred in the notice of Mr. Carroll. In the 5th line from the bottom, after the word "coincidence," read, *his amiable and accomplished son, &c.*

The erythematic inflammation of the stomach often arises in putrid diseases, and comes on insidiously. It is evident, by the inflammation appearing on the internal surface of the mouth. When, therefore, an inflammation of this kind affects the mouth and fauces in the bilious, typhus, or puerperal fevers, with a frequent vomiting, and an unusual sensibility in the stomach, we may suspect that the same affection extends downward. In such cases, or when the state of inflammation is approaching to gangrene, spirits of turpentine, in doses of a tea-spoonful, given alone or in a little water, upon the high authority of professor Chapman, will arrest the disease.—This medicine is to be repeated, more or less frequently, according to the urgency of the symptoms. When the disease is a little alleviated, the infusion of bark, with a few drops of any mineral acid, is borne with ease, and is highly beneficial.

Regimen. When the stomach will admit of nourishment, only that of the lightest kind should be allowed; barley water, and mucilage of gum-arabic, moderately warm, are the most suitable drinks. Every thing of a heating and irritating nature, must be carefully avoided for some time after the attack.

INFLAMMATION OF THE INTESTINES.

Symptoms. Tension of the belly—obstinate costiveness—great internal pain—external soreness, especially about the navel, and so severe as scarcely to bear the slightest touch—great debility—hard, small, and quick pulse.

Causes. The same, generally, that induce the preceding disease. It may also be the sequel of other diseases, as rupture, colic, dysentery, worms, &c.

Treatment. Whatever may be the cause, we must endeavor to bring about, as quick as possible, resolution, lest mortification be the consequence. The treatment of inflammation of the stomach will also be proper here, as copious bleedings, emollient clysters, frequently repeated, the warm bath, and immediately afterwards, a blister on the belly.—Cupping on the belly is also useful.

Such is the nature of this complaint, that we cannot be too cautious in the administration of *medicines* or *diluents* by the mouth. But the frequent use of emollient injections will, in great measure, supersede their necessity, and at the same time, act as fomentations to the parts. Fresh olive-oil, in the dose of a table-spoonful, is perhaps the only medicine that can be admitted with safety. When the violence of the disease shall have considerably abated, we may venture to give some aperient medicine by the mouth, as castor oil, not rancid, calomel, or cathartic mixture.

In this stage of the disease, laudanum may be employed with great advantage, particularly by way of injection.

When the disease is combined with spasmodic colic, the application of cold to the abdomen, either by means of pounded ice, cloths wetted with very cold water, or cold water dashed from a pail immediately over the belly, has sometimes succeeded, when all other means have failed, in removing the obstruction; producing an increased action of the intestines, from sympathy with the external parts.

REGIMEN. After the disease is subdued, the diet should be, for some time, of the lightest kind, and not flatulent.—The patient must be kept quiet, avoiding cold, severe exercise, and all irritating causes.

INFLAMMATION OF THE KIDNEYS.

ACUTE pain and heat in the small of the back—great numbness along the thigh, and not unfrequently, a retraction of one of the testicles—retching to vomit—voiding the urine in small quantities, sometimes very pale, and other times, of high red colour, attended with febrile affections. The patient generally feels great uneasiness when he endeavors to walk or sit upright, and lies with most ease on the affected side.

CAUSES. Excessive exertions, external injuries, violent strains, exposure to cold when heated, and calculous concretion in the kidneys.

TREATMENT. Bleed copiously, keep the bowels open with castor oil and emollient clysters, use the warm bath, or foment the part with a hot decoction of camomile or bitter herbs, or hot water alone; give mucilaginous and diluting liquors, as flaxseed tea, barley water, and thin gruel, with the camphorated powders, [*See Dispensatory*] or small portions of nitre. A decoction of peach leaves [*See Materia Medica*] is also beneficial in this complaint. Flannel wetted with spirits, and hartshorn, or tincture of Spanish flies, may be applied to the small of the back, for the purpose of exciting some degree of inflammation of the external parts. After the inflammation has somewhat abated, the exhibition of laudanum in its usual quantities, either by mouth or clysters, will add considerably to the cure. This disease is often removed by a moderate ptyalism.

If the disease have been treated improperly, or neglected at the onset, and a suppuration take place, known by a discharge of matter with the urine, use uva ursi, [*See Materia Medica*] or balsam capiva, twice or thrice a-day, for a week or two, and afterwards, take bark or steel.

REGIMEN. The diet should consist of the most mucilaginous substances, as arrow root, sago, milk, buttermilk, custards, flaxseed tea, barley, or rice water, &c. In the convalescent state, moderate exercise in the open air is of great service.

INFLAMMATION OF THE

BLADDER.

Symptoms. Acute pain at the bottom of the belly, which is much increased by pressure—a frequent desire for, and difficulty in making water, and frequent efforts to go to stool, attended with febrile affections.

Causes. Calculous concretions, suppression of urine from obstruction in the urethra, Spanish flies taken internally, or applied to the skin, wounds, bruises, &c.

Treatment. It must be treated as the preceding disease, excepting that, where there is an entire retention of urine, the patient should drink no more than absolutely necessary. Gum-arabic kept in the mouth will sheath the inflamed parts without adding to the quantity of urine. If necessary, the catheter must be introduced, though much care is required in the attempt, which often fails. After using the warm bath, a cataplasm of mustard and vinegar applied to the perinœum or some rubefacient, to excite external inflammation, will be attended with good effects.

The lovers of wine and cider should remember that those beverages, however pleasant and exhilarating, have a tendency to aggravate all diseases of the kidneys and bladder, especially when they originate from an acrid state of the fluids.

HEADACH.

If a foul stomach be the cause, give an emetic, after which, take columbo three times a-day. If from a plethoric habit, which is known by a heaviness of the head, and flushed face, bleed and give opening medicines. If from rheumatism, apply a blister to the back part of the neck, or between the shoulders; and at bed-time, bathe the feet in warm water, and take the anodyne sudorific draught. [*See Dispensatory.*] If from a weak habit, and where the pain returns at stated periods, as in cases of intermittents, and confined on one side of the head, as over an eye, the cure will generally depend upon the free use of bark and snakeroot, or the solution of arsenic, twice or thrice a-day, which seldom fails, especially if preceded by a brisk purge. In this, as well as other periodical pains, laudanum exhibited in a pretty large dose an hour or two before the expected fit, will often prevent its coming on. Æther externally applied over the pain on a piece of linen, with a warm hand to confine it, will afford immediate relief in headachs attended with cold skin. Cayenne pepper mixed with snuff, by irritating the membranes of the nostrils, has also given much relief in cold or nervous headachs.

It is not unfrequent that the partial or nervous headach, as it is termed, is produced from a decayed tooth, which, on discovery, should instantly be extracted.

Symptomatic headach is a disease of so many organs, that it is difficult to ascertain the organ primarily affected. But when the real nature of the complaint is ascertained, the practice to be pursued, will, of course, be obvious. Where the causes are beyond our reach, the disease may be mitigated at least by some of the remedies we have pointed out, such as paying attention to the state of the bowels, blistering, and keeping up a determination to the surface.

The sympathy between the head and the stomach has been already noticed. It is the subject of such constant experience, that to enlarge on it would be superfluous. Headach attends fever of almost every kind. Every obstruction in the bowels; every accumulation of sordes, or indigestible matter in the stomach produces the same disease; every obstruction to the regular evacuation of any gland, particularly those of the surface; every nervous affection, either from excessive excitability or exhaustion, has a similar consequence.

Repelled fluids from the surface produce very constantly a symptomatic headach. A cause of this kind is the repulsion of acrid matter from the surface, by the application of astringent washes to cutaneous affections; by saturine or mercurial applications as cosmetics, from which the head generally suffers, though the mischief is often more extensive, and apoplexy or epileptic fits the frequent consequences. Repelled gout is a still more serious cause.

We have not mentioned the mental causes, anxiety, fear, suspense and grief; for these seldom produce the complaint until the body, or, in general, the stomach, is affected. The headach of students is often a nervous affection merely.—Whatever be the action of the nervous fibres in intellectual operations, its excess is often a cause of pain; though in many instances, the headach of students is connected with obstructions of the bowels, and very often with increased determination to the head. The hysteric headach partakes of this nervous cause, particularly, when the pain feels as if a nail was fixed in the brain. Are we then to be surprised at its frequent occurrence? Is it not wonderful that the head is ever free from pain?

In the nervous headach, which occurs more frequently than is generally suspected, I have found no remedy so effectual as genuine wine. It may be given during the paroxysm, to persons unaccustomed to it, from a half pint to a quart, without producing any other than the pleasing effect of mitigating the pain. It is also the best preventive of all nervous diseases, when used regularly and in moderation. [*See Vine. Materia Medica.*]

When headach is accompanied with a coldness of the extremities, bathing the feet in warm water, rubbing them with flour of mustard or tincture of cayenne pepper, and keeping up a general circulation to the surface by flannel next the skin, will often afford immediate relief. And in cases of great determination to the forehead as indicated by a flushed face and preternatural heat, the application of cloths wrung out of cold vinegar and water to the head and temples will be attended with good effects.

Those subject to this complaint, should bathe their head every morning in cold water, avoid full meals, lie with their head high in bed; and always keep their feet warm, and the bowels in a regular state.

EARACH,

Is frequently produced by living insects getting into the ear. The most effectual way to destroy them is to blow in the smoke of tobacco, or pour in warm sweet oil. If occasioned by cold, inject warm milk and water in the ear, or drop in a little laudanum or volatile liniment. If this produce not the desired effect, foment the ear with steam of warm water, and apply a bag of camomile flowers, infused in boiling water, and laid on often, as warm as can be borne.

When the inflammation cannot be discussed, a poultice of bread and milk or roasted onions may be applied to the ear, and frequently renewed till the abscess breaks; after which, it must be syringed twice or thrice a day, with Castile soap and water. In this complaint, a blister behind the ear is highly useful.

DEAFNESS,

Is occasioned by any thing injurious to the ear, as loud noise from the firing of cannon, violent colds, inflammation or ulceration of the membrane, hard wax, or by a debility or paralysis of the auditory nerves. It also frequently ensues in consequence of long protracted fever.

Treatment. It is difficult to remove deafness, but when it is owing to a debility of some part of the organ, or arises in consequence of any nervous affection, stimulants dropped into the ear, often prove salutary.

Æther dropped into the ear, seems to possess a two-fold effect, one of dissolving the indurated wax, and the other of stimulating the torpid organ; but it is liable to excite some degree of pain, unless it be freed from the sulphuric acid. No prescription for deafness from indurated wax ever acted more surprisingly—none, I am sure, more agreeably, to my feelings at least, than the following:

In consequence of a violent attack of bilious fever, which degenerated into the nervous, my honorable friend, Colonel George M. Troup, of Georgia, was afflicted with a deafness for a year or two, so entire, that, in congress, when the members were on the floor, he was obliged to place himself close to the orator, and even then, frequently failed of the pleasure and profit of hearing his reasonings. Suspecting indurated wax to be the cause of his deafness, I directed the cavities of both ears to be well syringed with warm and strong suds of Castile soap. This was done twice a day, the ears constantly filled in the interim with pellets of wool dipped in strong camphorated liniment, and sometimes plugs of camphor. In a few weeks, the nerves of hearing recovered their sensibility, and, as the Colonel himself thought, more acutely, if possible, than before.

Salt water is a better menstruum for the wax, and may be employed, or some of the table salt finely powdered may be dropt in the ear. There is reason, however, for apprehending one bad effect from this remedy, viz: giving such a susceptibility to the organ, that it is more liable in future to be affected by cold, and therefore, this remedy must be employed with caution.

Deafness in old people is sometimes attended with noise in the ears, and is then generally owing to debility. Every evacuation increases it, and warm tonics, with a generous diet, are the best remedies.

TOOTHACH.

Is best removed by extracting the tooth; but if this cannot be effected, fill the cavity with a little cotton dipped in the toothach drops, Turlington's balsam, or any of the essential oils, or with pills of camphor and opium.

The nerve may sometimes be destroyed by a hot iron or knitting needle. A carious tooth is sometimes pained by accidental colds, and in such cases, it would not be prudent to have it extracted. If the external aperture is smaller than the carious cavity, after clearing away the carious matter, the access of air may be impeded by stuffing of gold or silver leaf. When the nerve is accustomed to the external air, it will continue carious for many years without pain, and be truly useful.

When toothach is connected with rheumatism or gout, which sometimes happens, the remedies of either should be employed.

This unpitied, though often excruciating pain, is, in most cases, no more than the just punishment of our neglect of the teeth. Surely, then, we ought to take some care of them, though it were but for the pleasure of having them sound.—But this care would be redoubled were we but daily to consider the advantage of good and clean teeth and sweet breath. Some women, indeed, are blessed with faces so nearly angelic that not the blackest teeth can entirely defeat their charms, nor the vilest breath drive away their lovers. But how different would be the effect of both, if, through their ruby lips, opened with a smile, we were to see teeth of ivory, white as snow, pure as the *fair owner's frame,* and accompanied with breath as sweet as that of infancy.

PREVENTION. To prevent the toothach, and to preserve the teeth and breath perfectly sound and sweet, the tooth-brush dipped in warm water, and then in charcoal tooth-powder, [*See Dispensatory*] should be used constantly every morning. The charcoal powder, an invention of the celebrated Darwin, is good for whitening the teeth, and admirable in correcting bad breath. The tooth-pick and tumbler of pure water should never be forgotten after every meal.

If the calcareous crust or tartar upon the teeth adheres firmly, a fine powder of pumice stone may be used occasionally. When the gums are spongy, they should be frequently pricked with a lancet, and gently rubbed with a powder composed of equal parts of Peruvian bark and charcoal.

Young persons who wish to carry their teeth with them through life, must take care never to sip their tea scalding hot, nor to drink water freezing cold. Such extremes not only injure the tender coats of the stomach, but often ruin the teeth, and have caused many imprudent persons to pass a sleepless night, distracted with pains of the teeth and jaws.

RHEUMATISM.

Symptoms. Wandering pains in the larger joints, and in the course of the muscles connected with them, increased on motion, and generally worse towards night. When, with fever, it is called acute or inflammatory rheumatism, and chronic, without.

Causes. Sudden changes of weather—application of cold to the body when overheated, wearing of wet clothes.

Treatment. In the inflammatory rheumatism, large and repeated bleedings are necessary, as indicated by the fullness of the pulse, especially on the first days, and when there is much pain. With this should be combined a free use of diluent drinks, as flaxseed or balm tea, barley or rice water, with a little nitre dissolved in each draught, or the antimonial powders or mixture in small doses, to excite slight perspiration, which should be kept up with great care, as in this relaxed state of the skin, the disease is liable to recur upon the least application of cold.

In this disease, a very essential discharge is the perspiration; and if this be not produced, every medicine appears injurious. Of the diaphoretics, Dover's powder seems best adapted to this complaint; and it should be observed, when sweating is once begun, should not be intermitted, and when it has relieved, should be suffered very gradually to decline.

The foxglove, exhibited in doses from ten to twenty drops every four hours, will be found a remedy of considerable effieacy, particularly when an objection is made to the free use of the lancet. The blood root [*See Materia Medica,*] is also a useful auxiliary in this disease.

Bleeding and blistering over the part affected, when the pain and inflammation continue violent, have likewise their good effects.

After the inflammatory symptoms have in a great measure subsided, the anodyne sudorific draught or bolus, [*See Dispensatory*] or laudanum alone, may be administered at bed-time, with great advantage.

During this general treatment, attention must be paid to the state of the bowels, which should be kept open by emollient clysters or cooling medicines, as the cathartic mixture, or castor oil, exhibited in small and repeated doses.

When the disease has fully attained its chronic state, it then forms a local affection, distinguished merely by stiffness, distension, and considerable immobility in the joint.

In this species of the disease, a different plan of cure must be followed. Large evacuations are to be avoided, and external stimulants of the warmest kind should be applied, as the oil of sassafras, spirits of turpentine, opodeldoc, or the tincture of red pepper and mustard, and along with this, friction with a flesh brush or flannel over the afflicted joint is not to be omitted. If these means prove ineffectual to rouse the energy of the part, add to an ounce or two of either of the above articles, one or two drachms of the tincture of Spanish flies. In addition to these remedies, the internal use of the rheumatic tincture, [*See Dispensatory*] in doses of a table-spoonful, twice or thrice a-day in a cup of tea, is much to be depended upon.

When these remedies prove ineffectual, we may suspect that some peculiar fault exists in the habit, which must be corrected before a cure can be expected. If the patient be much debilitated, of a scorbutic habit, give him the nitric acid diluted, or bark freely. And if the disease be in consequence of venereal taint, or taking cold from the use of mercury, let him take calomel in small doses, or one of the mercurial pills night and morning until a ptyalism be produced. A strong decoction of sarsaparilla [*See Materia Medica*] is also a useful auxiliary, and sometimes a remedy of itself.

In some cases of obstinate rheumatism, I have witnessed the happiest effects from taking, for some time, a tea-spoonful of flour of sulphur night and morning in milk or spirit and water. In others, again, I found nothing equal to the poke-berry bounce [*See Materia Medica*] in doses of a wine-glassful, morning, noon, and night.

The cuckow pint, or wake robin [*See Materia Medica*] in the form of a conserve, with an equal part of sugar, is often highly useful. The seneka root and mezereron in the form of decoction. has also been exhibited with most happy effects. Another valuable medicine in chronic rheumatism is the spirits of turpentine, in doses from twenty to sixty drops three times a day, which may either be given on sugar, in a little water, or incorporated with double the quantity of honey, by melting them together over a gentle heat. But it should be observed these active stimulants are never to be employed when there is the least febrile action prevailing in the system.

The solution of arsenic has, in some instances, been exhibited with success in the chronic form of this complaint.

Compressing the large arteries by means of a tourniquet or bandage, as mentioned under the head of intermittents, is another remedy which has been employed with advantage in severe rheumatic pains.

In recent cases when the pain wanders from one part to the other, or whenever the joints are stiffened and rigid, and the pain upon motion severe, or where the muscles have become contracted, by the length and violence of the disorder, immersing the whole body in a warm bath, strongly impregnated with salt, or applying it topically, by pouring warm water upon the limb from a kettle, or fomenting the part with a decoction of mullein two or three times a-day, will often, soothe the pain, and prove a useful auxiliary to the other means we employ.

Warm bathing, and warm pumping, are remedies of great utility in this disease; but as it requires painful muscular exertion to use the warm bath, it is not often resorted to. The vapor bath, from its superior temperature, is better adapted to its chronic form.

Two other forms of rheumatism ought here to be mentioned, namely, the lumbago, and the sciatic. The first attacks the loins or lumbar region, with a most acute pain shooting to the joints of the thigh. This affection is nearly related to the inflammatory rheumatism, and must be treated in the same manner, only instead of applying blisters over the affected part, they should be applied on the inside of the thighs, and kept running for some time.

The second, or sciatic, is a violent or fixed pain, attacking the hip joint, and partaking of the nature of the chronic rheumatism, is most successfully to be treated like that disease.

REGIMEN. In acute rheumatism, the patient must be kept on a cool spare diet; but no change whatever will be necessary in the patient's ordinary mode of living, in chronic rheumatism. In this species, mustard and horse-radish [*See Materia Medica*] used freely in their natural state, or united with food, will be found very beneficial. In all cases of both diseases, flannel, or fleecy hosiery, should be worn next to the skin, a flesh brush be used morning and night, and every precaution be taken to guard against exposure to cold and wet, and also to a moist or damp atmosphere. If the appetite is impaired, stomachic bitters, elixir vitriol or some of the tonic medicines may be taken with advantage. Exercise, either of the whole body or of particular limbs, will be highly important. The want of exercise is apt to produce stiffness in the limbs.

PREVENTION. Cold bathing, and the use of flannel next the skin, are the most effectual means of preventing the recurrence of both acute and chronic rheumatism.

TIC DOULOUREUX,

OR PAINFUL AFFECTION OF THE FACE.

Symptoms. A painful affection of the nerves, which mostly attacks the face. The most frequent seat of the affection is in the nerves over the cheek bone, just below the orbit of the eye, the nostrils, upper lip, and gums. The pain is often excited by opening and moving the mouth, attended with ptyalism and convulsive agitation of the adjacent muscles. The only diseases likely to be confounded with this are, rheumatism occupying the face and jaws and the toothach. It may, however, readily be distinguished from the former of them, by an attack of pain being readily excited, by the slightest touch, by the shortness of its continuance, and by its extreme severity and violence; and from the latter, by the rapidity of its succession, and there being an entire freedom from pain at intervals.

Treatment. A very great variety of medicines, given internally, as well as remedies applied externally, have been tried for the alleviation and removal of this excruciating complaint, and even a division of the nerve has been resorted to; but although this operation has answered the purpose in a few cases, still it has failed in many others.

Electricity, blisters, topical bleeding, by means of leeches, stimulant and anodyne embrocations, and frictions with mercurial ointment, have all been employed in rotation as external applications, whilst the solution of arsenic, large doses of the extract, as also powder of Peruvian bark, preparations of iron, opium, and the extracts of henbane, hemlock, and nightshade, have been administered internally in considerable doses.

It appears that the nightshade (bella donna) has, in many cases, proved a powerful and very efficacious medicine, and may therefore be given with confidence. From two to three grains of the extracts have been administered every five or six hours to adults during the great severity of the pain, or from twenty to forty drops of the tincture, lessening the dose very considerably as soon as ease was procured. It will always be most advisable to begin the use of this medicine in small doses, such as half a grain of the extract for an adult, repeated every four or six hours, increasing the quantity, by degrees, to about two grains, and we may, at the same time, make trial of it as an outward application to the cheek, by laying over it a piece of fine linen rag, moistened in a solution of the extract in water, in the proportion of six grains of the former, to two ounces of the latter, or it may be wetted in the tincture of nightshade. The use of this medicine internally, is, however, often attended with distressing symptoms, when given in such doses as to produce a certain effect, as impaired vision, giddiness in the head, numbness, tightness at the chest, and a sense of suffocation, with dryness in the throat; but these soon cease again on greatly diminishing the dose, or wholly discontinuing the remedy.

As persons unaccustomed to the use of so active a medicine, might be intimidated even by the probability of such unpleasant consequences, we would recommend them to make a previous trial of the carbonate of iron, in doses of one scruple, repeated three times a day, gradually increasing each dose to the extent of one drachm, if no decided benefit is derived by taking it in smaller quantities. This remedy has been employed in several cases of the tic douloureux after a failure of very large doses of the extract of bark, the solution of arsenic, and most of the other means usually resorted to, with an exception of nightshade, in all of which the complaint soon ceased, and has not again returned in any of them.

In the treatment of this very painful complaint, it has been advised to paralyze the nerve by the application of an ointment, consisting of two scruples of the superacetate of lead (sugar of lead) mixed with a little lard, every morning on the cheek affected, about an hour before the paroxysm is expected. The experiment has been tried with success by Mr. Astly Cooper, in a case which had previously resisted every other remedy, and even a division of the nerve by the knife.

VACCINE DISEASE,

OR COW-POX.

The vaccine discovery may be justly considered as one of the most extraordinary blessings bestowed on man, since it is incontestibly a certain security against the small-pox, a disease distressing in its symptoms, formidable in its appearance, doubtful in event, and to which mankind are generally exposed.

The comparative advantages which the kine-pox has over the small pox are very great and striking. *First*, it is neither contagious nor communicable by effluvia; *secondly*, it excites no disposition to other complaints; *thirdly*, it can be communicated with safety to children at the earliest age, and almost in every situation; and *fourthly*, it is never fatal. What more can be required to produce a general conviction of its superior utility? The method of performing the inoculation is, to hold the lancet nearly at a right angle with the skin, in order that the infectious fluid may gravitate to the point of the instrument, which should be made to scratch the skin repeatedly, until it becomes slightly tinged with blood. The operator must be cautious not to make the wound deeper than necessary, as the inoculated part will be more liable to inflammation, which may destroy the specific action of the virus.

The most certain method of securing the infection is, to inoculate with fresh fluid from the pustule; but as this is often impracticable, it is advisable to hold the infected lancet over the steam of boiling water to soften the hardened matter. Where the virus has been procured upon thread, make a small longitudinal incision in the arm, and insert in it the affected thread, and detain it there by court-plaster, until the disease be communicated. Matter may also be procured from the scab. The mode of inoculating from it is the same as from the fluid, taking care, however, previously to moisten it with tepid water, and to use the matter of the inner side of the scab. The scab will frequently retain its virus for months, provided it be kept in a close box.

The first indication of the success of the operation is a small inflamed spot where the puncture is made, which is very distinguishable about the third, fourth, or fifth day. This continues to increase in size, becomes hard, and a small circular tumor is formed, rising a little above the level of the skin. About the sixth or seventh day the centre of the tumor shows a discoloured speck, owing to the formation of a small quantity of fluid, which continues to increase, and the pustule to fill, until about the tenth day.

At this time it shows in perfection the characteristic features which distinguish it from the variolus pustule. Its shape is circular, or somewhat a little oval, but the margin is always well defined, and never rough and jagged. The edges rise above the level of the skin, but the centre is depressed, and has not that plumpness which marks the small-pox pustule. As soon as the pustule contains any fluid, it may be opened for future inoculation. About two days before, and two after the eighth day, making a period of four days, is the season when the matter is found in its greatest activity.

At the eighth day, when the pustule is fully formed, the effects on the constitution begin to appear. The general indisposition is commonly preceded by pain at the pustule and in the arm-pit, followed by headach, some shivering, loss of appetite, pain in the limbs, and a feverish increase of pulse. These continue with more or less violence for one or two days, and always subside spontaneously without leaving any unpleasant consequences. During the general indisposition, the pustule in the arm, which had been advancing to maturation in a regular uniform manner, becomes surrounded with a circular inflamed margin, about an inch or an inch and a half broad, and this blush is an indication that the whole system is affected; for the general indisposition, if it occur at all, always appears on or before the time when the efflorescence becomes visible. After this period, the fluid in the pustule gradually dries up, the surrounding blush becomes fainter, and in a day or two dies away imperceptibly, so that it is seldom to be distinguished after the thirteenth day from inoculation. The pustule now no longer increases in extent, but on its surface a hard thick scab, of a brown or mahogany colour is formed, which, if not removed, remains for nearly a fortnight until it spontaneously falls, leaving the skin beneath perfectly sound and uninjured.

The above is the progress of the vaccine inoculation in the greater number of cases, from the time of insertion to that of drying up of the pustule, with only the variation of a day or two in the periods of the different changes. The successive alterations, that take place in the local affection, appear to be more constant and more necessary to the success of the inoculation than the general indisposition. With respect to the latter the degree is very various—infants often pass through the disease without any perceptible illness—with children it is extremely moderate—and even with adults, its severity is but for a few hours, and then never dangerous.

Very little medical care is necessary to conduct the patient through this disease with perfect safety, especially when children are the patients. Adults may take a dose of salts on the eighth day, which will be particularly useful in plethoric habits. In general, no application to the inoculated part will be required, unless the inflammation increase, and the pustule become painful; then the part should be kept moist with cold vinegar and water, or lead water, till the pustule be dried up.

To conclude, much attention and discrimination are necessary in the vaccine inoculation, to ascertain whether the infection have fully taken, and whether or not, the disorder be complete and genuine. The regularity, with which the local disease at the place of inoculation runs through its several stages, seems to be the principal point to be attended to; for the presence of fever is certainly not necessary to constitute the disease, since the greater number of infants have no apparent indisposition.

Therefore, when the vaccine inoculation is followed by no local disorder, or only a slight redness at the punctured part, for a day or two, we can have no doubt that the operation has failed. When the pustule advances in very hasty and irregular progress, when the inoculated puncture on the second or third day after insertion, swells considerably, and is surrounded with an extensive redness, the premature inflammation very clearly indicates a failure in the operation, even when the inoculation has advanced for the first few days in a regular manner, but, when about the sixth day, instead of exhibiting a well formed pustule and vesicle of fluid, the part runs into an irregular festering sore, the purpose of inoculation is equally defeated, and these varieties require it to be watched with an attentive and experienced eye, since they might readily lead to a false, and perhaps fatal idea of security against any subsequent exposure to small-pox. The circumstance, however, which most strikingly distinguishes the genuine from the spurious disease, is the appearance of the pustule. In the genuine, the pustule has a *well-defined elevated margin*, with an *indentation* in its centre, resembling a button mould. The spurious is either pointed like a small common abscess, or is rugged and irregularly formed, like an ordinary sore. Every other symptom, almost occurs in each disease.

SMALL-POX.

It would seem unnecessary to take any notice of the small-pox, after having treated so largely of its mild and merciful substitute, the cow-pox; but as that dreadful disease does sometimes find its way on board of ships and into country neighborhoods, sweeping whole families in its progress, it may be very proper to subjoin the following history of its symptoms and treatment.

Symptoms. A few days prior to the attack, the patient complains of languor and weariness, succeeded by cold shiverings and transient glows of heat, immediately before the fever, which is accompanied by violent pain of the head and loins, and frequently, with a severe oppressive pain at the pit of the stomach. The patient is very drowsy, and sometimes delirious. About the third day, the eruption appears like flea bites, first on the face and limbs, and afterwards on the body. From this period, the pustules gradually increase, and on the fifth or sixth day, will begin to turn white on the tops. The throat, at this period, often becomes painful and inflamed; and sometimes on the seventh day, the face is considerably swelled.

In the confluent, the spots assume a crimson colour, and instead of rising, like the distinct kind, they remain flat and run into clusters, and during the first days of the eruption, much resembling the measles, but of a purple colour. The flow of saliva is constant in this form of the disease, and becomes so viscid as to be discharged with the greatest difficulty.

TREATMENT. The cure of small-pox depends on the general principle of the antiphlogistic plan, especially in a free admission of cold air, which may be carried much further in this than in any other disease. Bleeding in the first stage of the disease, or when the pulse is full, may be allowed, but the use of cooling purgatives, with acid and diluent drinks, are indispensable.

When the eruption makes its appearance in clusters of a dark red colour, the disease is more of a putrid nature, and consequently, instead of bleeding, requires a liberal use of bark and wine to invigorate the constitution, as directed in the nervous fever. [*See* OAK, *Materia Medica.*]

But besides this general treatment, there are some symptoms which require particular attention. Thus, when convulsions or great restlessness prevail, exposure to cold air, and a dose of laudanum are enjoined. Where perspiration is much impeded, or deglutition difficult, blisters may be applied to the breast and neck; and gargles, such as recommended for sore throats, frequently employed. If the perspiration be obstructed, the antimonial mixture may be used.

When this disease finds its way aboard of a vessel, or into a family, all those who have not had it, should immediately be inoculated with the variolus matter, if the vaccine fluid cannot be procured.

The benefits which result from inoculation are great, as we have an opportunity to prepare the system by abstinence from animal food, and by taking one or two purges of calomel and jalap before the eruption takes place. But if the subject be of a weak delicate habit, a restorative diet alone will be more proper.

In every stage of the small-pox, the bowels should be kept open, either by mild purgatives or clysters.

REGIMEN. The diet is to consist of vegetable substances, as arrow root, panado, milk, rice, &c., and when the eruption is completed, a more nourishing diet may be allowed. If the disease be of a putrid kind, wine, cider, perry, porter, or milk toddy, may be given freely.

In this, as in all diseases connected with putrescency, the advantages arising from cleanliness, as well as from frequent ventilation of the chambers, are so obvious, that to insist on them is unnecessary. [*See Nervous Fever.*]

MEASLES.

THIS disease is the effect of a specific contagion, and attacks persons only once in life.

SYMPTOMS. Alternate heat and chills, with the usual symptoms of cold. On the fourth day from the attack, eruptions like flea bites arise on the face and body, and in about four days more, those eruptions disappear with the fever.

TREATMENT. When the disease is very slight, little more is necessary, than to keep the patient's body open with the cathartic mixture. But should the febrile symptoms run high, with difficulty of breathing, bleed, blister the breast, and give Dover's, or antimonial powders, the febrifuge mixture, or diaphoretic drops. [*See Dispensatory.*] The cough being usually troublesome, it will be proper to take freely of flaxseed sirup, or some of the pectoral mixtures. Breathing the steams of warm water will also be useful, in relieving the cough as well as the eyes. The water should be put in a bason, and the head covered with a flannel large enough to hang over its edges. After the eruption is completed, the anodyne sudorific draught, paregoric, or laudanum, will be serviceable at bed-time, to allay the cough. If the spots suddenly disappear, immerse in warm water, or bathe the legs and feet, and give freely of warm wine whey, until the eruptions return.

The consequences attendant on the measles, are often more to be dreaded than the immediate disease, for although a person may get through it, and appear for a time recovered, still pulmonary consumption frequently arises and destroys him. Another bad consequence of the measles is, that the bowels are often by them in a very weak state, a diarrhœa remaining, which has sometimes proved fatal. An obstinate ophthalmia, or affection of the eyes, will also ensue, if proper attention be not paid in managing the disease. Most of these disagreeable symptoms may be prevented by blood letting, and administering emetics, cathartics, and diaphoretics, in the first stage of the disease.

Should the symptoms manifest a malignant kind of the disease, and a putrid tendency prevail, we must then adopt a very different mode of treatment from what has been advised for the inflammatory. The cure must be conducted on the plan recommended for the nervous fever, and putrid sore throat.

Regimen. The diet should be low and proportioned to the degree of fever. Barley or rice water, flaxseed tea, or other cooling mucilaginous drinks, with jellies, as arrow root, gruel, sago, &c. will, in general, be all that is necessary, until the feverish symptoms are evidently on the decline. Much caution is necessary, that the patient be not suddenly exposed to cold air, which might repel the eruption, and produce fatal effects.

CHICKEN, OR SWINE-POX.

In this disease, an eruption much resembling that of a very favorable small-pox, appears after a very slight fever. This eruption soon proceeds to suppuration, in which state it remains but a little time, before the disease terminates by the drying up of the pustules, which seldom leaves scars behind.

As to the treatment, medicine is very seldom necessary, it being generally sufficient that the patient be kept moderately cool, and supplied with the diluent drinks and light food.—Should there be fever, a cooling purge, and afterwards, the antimonial powders or mixtures, may be employed.

MILIARY FEVER

Is now considered to be symptomatic, only, because it never appears contagious or epidemic. It sometimes attends febrile affections, as well as those of an inflammatory as of a putrid nature, but it seldom occurs in any, unless a hot regimen and sweat precede. The symptoms which attend, are restlessness, frequent sighing, fetid sweat, pricking of the skin, and an eruption of red small distinct spots, at first, confined to the neck, breast, and arms, but soon spreads over the whole skin, except the face. When these eruptions make their appearance, they must be treated according to the rules laid down under their proper heads.

SCARLET FEVER.

Symptoms. Chilliness, followed by a burning dry heat—the pulse frequent, respiration irregular, a dejection of spirits, great prostration of strength, and often a stiffness of the neck. The face and neck is at first covered with red spots, which soon extend over the whole body. A sore throat generally comes on about the second or third day, but sometimes is wholly absent; however, a redness of the fauces in every case is conspicuous. This fever is distinguished from the measles by the eruption being less distinct and more like a red coloured effusion, and by not being accompanied by catarrhal symptoms. It is distinguished from Saint Anthony's Fire by the fever being more considerable at night than the former, and the swelling being scarcely observable. It attacks more frequently young children; whereas, Saint Anthony's Fire is mostly confined to adults, and is not attended with scarlet hue on the throat. This fever is evidently infectious, generally epidemic, and appears most frequently at the end of summer.

Treatment. Give an emetic on its attack, and on the following day administer some gentle cathartic medicine.—The bowels should be kept in a soluble state, and nitre given in the patient's drink. The heat must be repelled rather than encouraged. And this is to be effected by cold affusions, which should be steadily applied. It is not enough to sponge the body once or again, but the cold water must be dashed against the patient repeatedly till the heat is subdued, and the process must be repeated as fast as it returns. In this disease, cold water is peculiarly applicable; the heat being considerable, the determination to the head violent, and the debility alarming. We know no disorder which represses so powerfully the constitutional energy. Bark and cordials would appear peculiarly useful in this complaint from its tendency to putrefaction; but if these are early employed they will be found to increase both fever and delirium, to check the perspiration, and to impede sleep.

Where this disease is attended with malignant symptoms, its tendency is to the putrid kind of fever, and must be treated accordingly. [*See Nervous Fever, and Putrid Sore Throat.*]

Regimen. The diet should be light, the liquors cold and acidulated with vegetable and mineral acids. The stools should be frequently removed, the linen frequently changed, and the room kept airy. The nurses should carefully wash themselves, and frequently change their linen. With these precautions, there is little danger of infection.

ST. ANTHONY'S FIRE.

Symptoms. An inflammation on some part of the skin, attended with pain and heat; and when extensive, there is considerable fever, accompanied with drowsiness.

Causes. Imprudent exposure to cold when the body is heated—hard drinking—and sudden stoppage of any natural evacuations.

Treatment. When slight, it requires only that the bowels be kept gently open, by an infusion of peach leaves, [*See Materia Medica*] small doses of cream of tartar and sulphur, or the cathartic mixture, with small portions of nitre in the patient's common drink; but when the attack is violent, and the head affected, then, in addition to the above, bleed, bathe the feet in warm water, apply a large blister between the shoulders, sinapisms to the extremities, and give the saline or antimonial mixture [*See Dispensatory*] with diluent drinks.

The best external applications are flour or starch, gently sprinkled by a puff on the part, or in case of dryness and much heat, fresh leaves of the thorn apple, or cabbage leaves, stripped of their stems and softened in boiling water, and renewed every two or three hours. Cold applications, as cloths wetted with vinegar and water, with the addition of a small quantity of camphorated spirits, has also been employed with great benefit and relief to the feelings of the patient.

If, in spite of those means, ulcerations should take place, apply bark poultices, frequently renewed, or cloths dipped in the camphorated spirits, with the usual means of preventing mortification. Should the inflammation assume a purple colour, or the swelling suddenly subside, attended with internal oppression, anxiety and weak pulse, apply blisters or sinapisms to the extremities, and give wine or warm toddy freely, to throw out the eruptions to the skin; and then it is to be treated as the nervous fever.

Regimen. The diet should be low, and the drink chiefly of rice and barley water, acidulated with tamarinds or the juice of lemons.

Prevention. Avoid the extremes of heat or cold, abstain from spirituous liquors, and keep the bowels regularly open.

BLEEDING AT THE NOSE.

In febrile diseases, accompanied with pain in the head, flushed countenance, and redness of the eyes, bleeding from the nose in general is salutary, and ought not to be checked, unless the patient is likely to be too much exhausted by it.—However, when this discharge is too profuse, the patient should have his head raised and exposed to cool air. Beside which, cold acidulated drinks should be used, and the patient should rather immerse his head in very cold water, or have cloths dipped in cold vinegar and water frequently applied to the nostrils, face, and back of the neck. A piece of metal, as a key for example, applied cold to the naked back, is a familiar remedy, and often succeeds. If these should not prove sufficient, a pledget of lint dipt in strong alum water, or a powder composed of flour and alum of equal quantity, should be introduced into the nostrils, with sufficient force to compress the orifice of the ruptured vessels. In addition to these means, give a dose of epsom or glauber salts, to evacuate the bowels, and from ten to twenty grains of nitre every hour or two, in a glass of cold water. Immersing the feet in warm water while the cold applications are continued to the head, will also be found beneficial.

One of the most powerful styptics which we can use, says Dr. Thomas, is powder of charcoal. It may be applied by means of tents, first moistened with water, and then dipped in this powder; but in slight cases, it will answer by being taken like snuff.

After the bleeding has ceased, the patient must be careful not to remove the tents of clotted blood, but should allow them to come away of themselves.

SPITTING OF BLOOD.

When there is a discharge from the mouth, of blood of a florid colour, brought up with more or less coughing, preceded by a sense of tightness, weight, and anxiety in the chest, and attended with a saltish taste of the spittle, it is in consequence of a ruptured vessel of the lungs.

Causes. Plethora—violent exercise of the lungs—and frequently a faulty conformation of the chest.

Treatment. The most important remedy in this alarming complaint, is blood-letting, which should be actively employed, paying, at the same time, attention to the state of the bowels. Spitting of blood, however, is sometimes owing to the contraction of the chest with debility; and in this case, the lancet must not be so freely used.

Sedatives, particularly those which repress the activity of the circulation, are highly useful. Of these, the chief are nitre and foxglove. Nitre, in doses of ten grains, given every hour, in the coldest water, and swallowed while dissolving, is much to be depended on in the early stage of this disorder.—The tincture of foxglove exhibited in small doses every hour or two, by retarding the action of the pulse, will also prove a most useful auxiliary in suppressing pulmonic hemorrhages, particularly in those cases where an inflammatary diathesis prevails. Whenever there is fixed pain in the chest, a blister applied to the breast or back will do much service.

According to Dr. Rush, two tea spoonfuls of common salt, dissolved in a small quantity of water, and exhibited every two hours or oftener, will check this disease, as well as hemorrhages from the stomach and uterus.

Astringents are frequently resorted to, as alum, kino, and sugar of lead, but they are of little utility, except in the passive hamoptyses, and even in these, nitre is often found preferable.

If the cough be troublesome, it will be necessary to have recourse to demulcents and pectorals, as advised under the head of cold. Sometimes a spitting of blood is produced in consequence of suppressed evacuation; in this case, it is not dangerous, and only requires remedies to restore the customary discharge.

A spitting of blood may readily be distinguished from a discharge of it from the stomach, as, in the latter, the quantity is usually more considerable, of a darker colour, and is generally unattended by coughing.

Regimen. A low diet should be strictly observed, and the body kept as quiet as possible. Nothing should be taken warm: flaxseed tea, barley or rice water, acidulated with the juice of lemons or elixir vitriol, ought to be used as common drinks, and taken as cold as possible.

Prevention. Carefully avoid all exertions which detain or which hurry the blood in its passage through the lungs, as singing, loud speaking, running, or lifting great weights. Obviate costiveness, by the occasional use of mild aperients, and use a spare diet. On experiencing any pain in the chest, blister, bleed, and constantly wear flannel next to the skin.

Swinging, sailing, travelling in an easy carriage, and riding on horseback, will be the most appropriate exercise.

CONSUMPTION.

Symptoms. Those which mark its first stage, are a slight fever, increased by the least exercise—a burning and dryness in the palms of the hands, more especially towards evening—rheumy eyes, upon waking from sleep—increase of urine—dryness of the skin, as also of the feet in the morning—occasional flushing in one, and sometimes both cheeks—hoarseness—slight or acute pain in the breast—fixed pain in one side, or shooting pains in both sides—headach—occasional sick and fainty fits—a deficiency of appetite—and a general indisposition to exercise, or motion of every kind.

The first appearance of this disease will vary in different cases; but the most constant symptoms which characterise it, are a cough and phlegm resembling matter, of which, at length, it becomes entirely composed.

This disease often attacks insidiously, and is chiefly confined to the young, the fair, with light skins and blue eyes, florid complexions, contracted chest, and high shoulders. In constitutions disposed to hectic, the fingers are often long, and the nails bent; they grow rapidly, but seldom expand in breadth and bulk. From the age of twelve or fourteen, to that of about thirty-five, is the hectic period; more generally from sixteen to twenty-four; and the tendency seems to return about forty-five or fifty, especially in women at the period of the cessation of the catamenia. At the age of fourteen or sixteen in each sex, while the genital organs are evolving, there is often a considerable debility and irritability. The debility in females is often formidable, and a slight cough is no uncommon attendant. The cough is either quite dry, or accompanied with an expectoration of a small quantity of a thin frothy matter, which differs from that of true catarrh, in being easily diffusible in other fluids. Sooner or later, the general health becomes impaired, and at length, the fatal hectic makes its appearance with little suspicion; all the symptoms being referred to the great change that then takes place.

No diagnosis can arise from the existence of fever, since in the chlorolic state, coldness, with occasional flushing, are not unfrequent. In general, however, the fever of phthisis attacks more pointedly in the evening; that of chlorosis in the morning. The appetite of hectic patients is best in the forenoon; of chlorotic at night; and the latter can eat meat suppers frequently with impunity.

It sometimes occurs that persons who have been improperly treated in the venereal disease, have symptoms which assume the form of consumption; but, in general, the chest is free, while pains are more violent at night, and more frequently in the middle of the bones of either extremity, or deep seated in the head, than in the trunk. It has also seldom proceeded so far as to mislead, without showing its nature by eruptions, or by an affection of the throat. From the state of mind, we may draw some distinction; for cheerful hope illumines every hour of the hectic; despair darkens each moment of the syphilitic patient.

Strange as it may appear, amidst all the horrors of this disease, the patient's hopes are seldom abandoned, and even increase, as the fatal termination advances.

Causes. Obstructions and inflammation of the lungs, depending most frequently on the existence of small tubercles in the substance, which, coming to suppuration, burst and discharge a purulent matter. Sometimes, it is induced by a general affection of the system, and sometimes it is a consequence of other diseases, as cold, measles, small-pox, pleurisy, &c. &c.

Treatment. This must be varied and adapted to each stage and case of the disease. In the first or inflammatory stage, moderate bleedings, twice or thrice a-week, according to the force of the pulse and habit of the patient, are essential, aided by blisters to the breast and back, and employing, at the same time, a cooling regimen.

In almost every species of the disease, blisters or issues are often a means of relieving the cough; for even when they have no tendency to remove the stimulating cause producing cough, as when it arises from a tubercle, yet they diminish the effect of the stimulus. They are particularly useful in that period of the disease, when a catarrhal has a disposition to degenerate into a phthisical affection; for in that modification of the disease, derivation from the lungs is of the utmost consequence. By this means, a change may often be affected in that state of suppuration which takes place from the internal membranes of the lungs, and the purulent discharge may thus be converted into the natural mucus.

Among other remedies in consumption, the use of emetics is strongly recommended. By the action of vomiting, the blood is propelled to the extreme vessels in every part of the body, particularly to the extreme vessels of the surface. Thus, there is produced a derivation from the lungs, and a consequent change in the state of separation at that part of the system; but they are chiefly useful in consumption, as obviating symptoms, particularly cough and difficulty of breathing, and by promoting expectoration.

A considerable variety of medicines of the refrigerating kinds have been strongly recommended for combating consumption in its incipient state. They tend to diminish the impetus of circulation, and although they do not immediately remove a plethoric state, yet they perhaps tend to diminish the inflammatory diathesis even more effectually than the repeated blood-lettings. The cooling neutrals through the whole course of the disease, are useful; particularly nitre, which may be advantageously taken in any period of the complaint. Demulcents are always indicated, and usually employed in the manner we have recommended under the head of cold, to sheath the fauces and lessen the violence of cough. Gum-arabic held constantly in the mouth, will also be found extremely useful in relieving this distressing symptom.

Of all the remedies which have of late been fashionable in consumption is the fox-glove, [*See Materia Medica*] but it does not seem to merit all the praises which has been given it. Under proper management the fox-glove produces a slowness of the pulse, not perhaps to be obtained from any other medicine yet discovered. And it has been the opinion of some, that, by reducing it to the natural standard, from the employment of digitalis, consumption may be overcome. But it should be observed, that the quickness of pulse in this disease is merely symptomatic, and that the reduction of it, even below the natural standard, can have no effect either in removing a tubercle, or in healing an ulcer in the lungs. Hence, on this ground, it is in vain to expect a radical cure from its use. However, as a diminution of the celerity of the pulse will somewhat alleviate the hectic fever, it may, in certain cases, be employed with advantage. The most eligible mode of using the fox-glove is in a tincture, beginning with the dose of ten drops, and gradually increasing it to sixty to an adult, morning, noon, and night. In exhibiting this medicine, it should not, however, be given in such doses as to induce much sickness.

Among other active medicines, recourse is frequently had to mercury, but unless consumption was excited by a venereal taint, we have never witnessed benefit from this medicine. On the contrary, when mercurial salivation is produced in the genuine consumption, it has uniformly hastened the death of the patient.

Iceland, liverwort, or moss, has been, of late, highly extolled as a remedy in this complaint that readily allays cough, facilitates expectoration, abates hectic fever, and quiets the system without constipating the bowels. It is likewise said to strengthen the organs of digestion, without increasing the action of the heart and arteries. Indeed, the physicians of Europe have spoken so loudly in its praise, that every patient ought certainly to give it a trial. The most approved method of using it, is in the form of decoction; one ounce of the herb to a quart of water, boiled for fifteen minutes over a slow fire, to which two drachms of sliced liquorice root may be added about five minutes before it is taken off. A tea-cupful of this decoction should be taken four times a-day. Another form is by boiling two drachms of the herb in a pint of milk for ten minutes, and taking it for breakfast and supper. If chocolate be preferred, it may be blended with it, by making the chocolate with a decoction of the moss, without the liquorice, as above directed.

Of all our indigenous plants, the Indian turnip [*See Materia Medica*] has the highest reputation as a remedy in consumption. It is evidently an active expectorant, and may be useful in the latter stage of the disease.

In the treatment of this disease, balsamic medicines are frequently resorted to. They are totally unsuited to the inflammatory state of any one of the complaints of the lungs, whether acute or chronic. Action having been sufficiently subdued by depletory measures, they may be safely and advantageously administered in catarrhal consumptions and protracted coughs; and will be found particularly useful when expectoration is checked from debility, and a want of irritability of the glands. So opposite are the states of the lungs in catarrhal affections, that it requires essentially different substances to produce expectoration. It may be repressed or imperfectly performed, by a constriction of the lungs, and by the removal of which, an infinite degree of relief is often afforded. It is also apparent that the lungs occasionally, from extreme debility, pour out an excessive discharge, and that by direct stimulation of the exhalents, the effusion is abated and oppression removed.

The advantages of the *vegetable balsams*, as they have been called, were supposed to consist in their power of promoting the healing of wounds and ulcers. At one time, many of them were highly extolled in pulmonary consumptions; but each have had their day of fashion, and have each fallen into deserved neglect. According to the testimony of Drs. Duncan, Simmons, and other eminent physicians, gum-myrrh, exhibited in doses of twenty or thirty grains thrice a day, united with an equal quantity of nitre, has, in many instances, been employed with the best effects in this intractable disease.

While, for resolving tubercles or healing ulcerations in the lungs, many medicines have been taken internally, some modes of cure have been recommended with the view of acting topically on the diseased parts. In this way, different articles have been directed to be inhaled into the lungs, under the form of vapor. In an inflammatory state of the bronchial glands, warm watery vapor may be useful, and vinegar has occasionally been added; but it seems often to irritate the cough, and the more stimulant vapors are evidently injurious, except where expectoration is difficult and deficient. In cases where the accumulations of the chest are owing to debility of the lungs, or are retained by the vicidity and tenacity of the matter, sulphuric æther is strongly recommended; and we are told, upon the high authority of Dr. Pearson, that its powers are improved by several substances which are soluble in it. Hemlock is particularly praised, half a drachm of which is to be digested in an ounce of æther, for several days, so as to form a saturated tincture. Of this, two or three tea-spoonfuls are to be put in a wine glass, to be held up to the mouth, and inspired till the whole is evaporated, and repeated several times in the day.

Similar in its effect to these inhalations, is the practice of smoking tobacco, the stramonium and other substances.

With the same views, tar fumigations, according to a distinguished Russian physician, Dr. Crichton, of Petersburg, have been employed, and, is said, with triumphant success. The mode he recommends for doing this, is, to put the tar in an earthen vessel over a lamp, or heated iron, so as to cause a volatilization till the air of the room is sufficiently impregnated, and this process is to be repeated three or four times a-day.

Having stated the remedies which have been most highly recommended in consumption, and from which, when properly adapted to the circumstances of the case, there is the best chance of recovery, we will conclude with a few remarks on the means of obviating urgent symptoms.

It is a fortunate circumstance, that even in those diseases where the prospect of recovery is the most faint, and where there is next to certainty of an approaching dissolution in no long time, we still have it in our power to protract the period of life, and to alleviate the distress of the patient. In many cases of this terrible disease, it is all that we can reasonably expect to accomplish.

Although colloquative sweats are not productive of pain, yet they tend very much to debilitate the patient, and by the loss of strength, the chance of recovery is very much diminished. Hence the necessity, in such cases, of giving some tonic, as the elixir vitriol or infusion of bark.

In every instance of consumption it is of importance to prevent costiveness, and it is always a desirable circumstance to keep the bowels in a soluble state, which should be obtained rather by diet than medicines. But when *diarrhœa* occurs spontaneously, this should in like manner be restrained by shunning the use of those articles which are observed to increase it, and by employing what are found to moderate it.

Of all the symptoms which require to be mitigated, there is none which more frequently demands attention, than the cough. For this purpose an almost infinite variety of articles, either of the demulcent or sedative kind, [*See Cold*] may be employed with advantage. But of these substantives, after the inflammatory symptoms have been subdued, none is so useful or so powerful as opium. This article, however, valuable as it is, cannot be considered free from inconvenience. There are some individuals with whom, from peculiarity of constitution, it always disagrees, producing confusion in the head, vertigo, sickness at the stomach, and various other distressing symptoms. Hence recourse has been had to a variety of other sedatives, both with the view of allaying inordinate action, and of procuring sleep. Of all the substitutes for opium, none, according to the testimony of one of the most celebrated and distinguished physicians in England, Dr. Duncan, equals the preparations formed from the common garden lettuce. [*See Materia Medica.*]

It has been supposed, that by the continued use of opiates, they might allay irritation, and contribute to the great object, the healing of the ulcer. They have, however, failed in this view, though we cannot refuse their employment to lessen pain, and keep up the calm serenity, the pleasing delirium, in the midst of distress, and a state hopeless of relief.

From what has been said of the principal remedies recommended in consumption, the reader will find but little encouragement to indulge a hope of relief. He will probably exclaim, is consumption then never cured? Whence can arise the confident promises which every newspaper offers, and which the most respectable authorities confirm? The deception arises from two sources. Catarrhal complaints are, in many instances, confounded with consumptive, and the most experienced eye is occasionally deceived. In some cases also vomicæ are completely evacuated by expectoration, and the wound heals. So insidious is the attack of consumption, that it has often been taken for catarrh, and on the contrary, so violent is often a catarrh, that it has been pronounced to be truly phthisical, by practitioners of judgment and experience; nor has the delusion been destroyed but by expectoration.—From such errors it is not to be wondered that so many medicines should have gained credit in the cure of consumption. To say, however, that this disease is never cured, would certainly appear rash; for instances have occurred in which a recovery has been perfected by nature; but they are so few, that they can scarcely inspire hope.

Regimen. Perhaps a greater number of cures in consumption have been effected by regimen than by medicine, especially if under this head be included, not merely diet, but air, exercise, and similar circumstances.

It has been but too common to prescribe the same diet in every stage of the disease, which has been attended with the most pernicious effects, and has often hastened the death of the patient. While the Brunonian fed his patients to avoid debility, the other practitioners carried, apparently, their antiphlogistic system too far. In judging of that diet which is best suited to phthisical patients, due attention must always be paid to its effects upon the system. While a considerable discharge by blood-letting is requisite, it is certainly proper to avoid those articles which can furnish a large supply of rich chyle, even, although they should be, like milk, of the very mildest nature. But after suppuration takes place, and there is a free discharge of purulent matter, the antiphlogistic plan should be pursued no further; on the contrary, a more nutricious diet is essentially necessary. The healing of tuberculous ulcers in the lungs, as well as of scrofulous sores at other parts, is only to be expected from recruiting and giving vigor to the system. In this state of the disease, therefore, a nutritious diet is naturally indicated; and indeed the evident marks of exhaustion point out the propriety of a due supply. Besides these particulars, a liberal and nutritious diet is often manifested in this stage of the disease by the feelings of the patient, for it is, by no means, uncommon to observe even a craving for animal food; and it may be remarked, that in very rare instances only are such calls of nature entirely to be neglected.

The diet in the inflammatory state of consumption should be light, and composed of articles that tend to correct acrimony, and diminish inflammation, as milk, butter-milk, rice-milk, arrow root, sago, fruits of every kind, and vegetables. In the advanced stage of the disease, and when the pulse is weak, a more cordial and stimulating diet, and strengthening remedies are necessary. To prevent weakness, and other ill effects of an empty stomach, patients should take frequently of meat, with wine, porter, or toddy: raw oysters are thought to be peculiarly proper. With this cordial diet, tar pills, bark, and elixir vitriol, or an infusion of the inner bark of the wild-cherry tree, or hoarhound, and bitters of all kinds, have been exceedingly useful in this state of consumption.

Air and *situation* are apparently objects of considerable importance, in a disease where medicine must confess the utility of her resources. Change of air is among the remedies constantly recommended; and *to change* is often professedly the only object.

Exercise, when not carried to fatigue, in a dry country air, often does more good than medicine, and, consequently, should always be taken.

Long journies on horseback, are the most effectual modes of exercise, carefully avoiding night air, and the extreme heat of the day in summer. That exercise be not carried to fatigue, patients should travel only a few miles a-day at first, and gradually increase the distance as they increase their strength. When exercise on horseback cannot be supported, sailing and swinging should be substituted, and no efforts to cheer the spirits, or innocently to amuse the mind, should be neglected.

Great care should be taken to regulate the dress according to the changes of the weather. The chest, in particular, should be defended from the cold, and the feet from the damp. In the various stages of this disorder, the bowels ought to be kept moderately open by emollient clysters, or the mildest laxatives, if the diet should not have the desired effects.

INCONTINENCE OF URINE.

Symptoms. An involuntary evacuation of urine.

Causes. A relaxation of the sphincter of the bladder—injuries received about the neck of the bladder—pressure of the womb in a state of pregnancy, &c.

Treatment. When the disease proceeds from a relaxation of the sphincter of the bladder, a large blister to the *os sacrum* or lowermost part of the back-bone, will be found highly beneficial, and often effects a cure in one or two days. The cold bath, or dashing cold water upon the genitals, and tonic medicines, as the nitric acid, lime water, bark, steel, and columbo, are peculiarly proper in obstinate cases of this kind. The tincture of cantharides, in doses of ten or twelve drops, every three or four hours, is said, by Dr. Morton, to be a specific in this complaint. Others recommend alum whey, made as strong as the stomach will bear it, and direct a half pint to be taken night and morning. With others, the blue vitriol, in doses of half a grain, given twice a-day, in any agreeable liquor, is most to be depended on. The occasional use of rhubarb, in small doses, to keep the bowels easy, tends greatly to alleviate the affection. When it is produced by an impregnated womb, little more can be done than observing a horizontal position as much as possible.

DIFFICULTY OF URINE.

When there are frequent uneasy urgings to void urine, and it is discharged with difficulty and pain, the disease is called a *strangury;* and when it is totally retained, is called a *suppression of urine.*

Causes. It arises from a variety of causes, as calculous concretions—obstructions in the urethra—blisters—or the tincture of cantharides, taken internally too freely—wounds, bruises, &c.

Treatment. The cure must greatly depend on the cause. If the pulse be full and feverish, bleed and procure stools by emollient clysters and cooling laxatives, such as castor oil, or the cathartic mixture. [*See Dispensatory.*]—Much dependence is to be placed in the free use of demulcent drinks, as barley water, flaxseed tea, mucilage of gum-arabic, decoction of marsh-mallows, of parsley roots, or of water-melon seeds, especially if the affection be owing to the cantharides, or any injury of the bladder. One of the camphorated powders, [*See Dispensatory*] given every three or four hours, in the patient's common drink, often effects a cure.—Great relief will be obtained from the warm bath, used oftener or seldomer as the case may require, or sitting in a tub of warm water, or from the frequent applications to the belly, of cloths wrung out of hot water, or bladders half filled with it. Opiates are very serviceable, but should never be used in the height of fever.

A starch clyster, with laudanum, has very frequently given immediate relief. Cooling laxatives and diuretics, which operate without any stimulus, particularly the epsom or glauber salts, as in the form of the cathartic mixture, often relieve. As a diuretic, the following mixture is considered most salutary. Take, of sweet spirits of nitre, one ounce, laudanum and antimonial wine, each, two drachms, a table-spoonful of which may be given in some diluent drink, and half this quantity repeated every hour, if necessary.

In the chronic stranguary, after other means have failed, the use of calomel in small doses, or mercurial ointment rubbed into the thighs every night till a slight ptyalism ensues, has frequently effected a permanent cure. In such cases an affection of the prostrate gland may be suspected to have been the cause. Walking on a cold wet floor, perhaps dashing water against the legs and thighs, would, in obstinate cases, succeed in procuring a discharge of urine, as it has done the discharge of the fæces. When a suppression of urine arises from partial palsy, as frequently occurs in the old and debilitated constitutions, our best chance of success, in giving temporary relief, is to give the spirits of turpentine in pretty large doses, make use of general stimulants, and apply a large blister to the loins.

When this complaint is in consequence of calculous concretions or gravel obstructing the urinary passages, which may be known by pain in the loins, sickness at the stomach, and sometimes a discharge of bloody urine, an infusion of wild carrot-seed sweetened with honey, as also the infusion of peach leaves, [*See Materia Medica*] have been found exceedingly beneficial. The infusion of hops, which is considered a solvent of the stone, administered in doses of a wine-glassful, and taken to the quantity of a pint daily, is said to be an excellent remedy in calculous affections. The uva ursi, is likewise celebrated as a remedy in cases of gravel, in doses of five grains with half a grain of opium, thrice a-day. A more powerful medicine, however, for gravel complaints, is the caustic alkali, or soap-lees, [*See Dispensatory*,] but being of an acrid nature, it ought always to be given in mucilaginous drinks, and commenced with small doses, which should be gradually increased as far as the stomach can bear, and continued for a long time, particularly if there should be an abatement in the symptoms.

When great pain attends a suppression of urine, and the bladder is full, which can be ascertained by feeling it above the os pubis, and on pressure creating pain in the neck of the bladder, or at the end of the penis, it will be necessary to have recourse to the catheter, or a hollow bougie for drawing off the water. The larger sizes of each are more easily introduced than the smaller, as they are not so liable to stop in the corrugations and foldings of the urethra, which occurs in elderly men. It is easy to introduce the catheter into the female bladder, since the direction of the urethra is nearly straight; but in males there is greater difficulty. The celebrated Heister directs the man to lie on his back, and the operator to take the penis in his left hand as he stands on the patient's left side, reclining the penis towards the navel, then he is to introduce the catheter, thoroughly oiled, with its concave part to the belly, in the urethra, so far as the os pubis, and so thrusting it under the symphysis of those bones, and moving the hands gently outwards, forces it into the bladder.

In the following cases, this instrument cannot be used.—When the neck of the bladder is greatly inflamed—when a scirrhosity or preternatural tumor of the prostrate gland or stone obstructs the passage—when the uterus is remarkably prominent and pendulous over the pubes—or when the uterus is retroverted, in which state it drags the bladder upwards and backwards.

When the application of blisters causes a difficulty of urine, wash the blistered part frequently with warm milk and water, or apply sweet oil. In children, a suppression of urine is often relieved by a poultice of raw onions or radishes applied to the bottom of the belly.

Regimen. During the violence of this complaint, the lightest diet only should be used, and mucilaginous drinks taken freely. Those who are often afflicted with it, ought carefully to avoid aliment hard of digestion, flatulent, or of a heating nature.

HEMORRHOIDS, OR PILES.

When there is a discharge of blood from the hemorrhoidal veins, it is called the *open* or *bleeding piles*; and when, instead of this hemorrhage, there are painful tumors at the lower part of the rectum, it is called the *blind piles*.

Causes. Costiveness—strong aloetic purges—much riding—or sedentary habits.

Treatment. If the patient be of a full habit, bleed, keep the bowels gently open with epsom salts, the cathartic mixture, cream of tartar and sulphur or molasses and water; and avoid violent exercise, high seasoned dishes, and every thing of a stimulating nature. Topical applications, as cloths wrung out of cold vinegar and water, or lead water, are also useful, and should not be omitted in either case. When the piles are of the bleeding sort, and will not readily yield to the above means, apply cloths dipped in charcoal powder, or in a strong solution of white vitriol or alum, frequently to the fundament, or anoint the part with the hemorrhoidal ointment [*See Dispensatory*] and endeavor to restore the tone of the vessels by the use of bark, elixir vitriol, nitric acid, or tincture or rust of steel. When the disorder assumes a chronic form in the more advanced periods of life, or when the piles do not bleed, they are generally attended with considerable pain, in which case, dossils of lint dipped in olive oil may be applied, or olive oil with an equal portion of laudanum, may be spread on soft rags and retained by the T bandage. In addition to this mode of treatment, when the tumors are very painful, it is necessary to sit over the steam of hot water, which seldom fails to produce immediate relief. The poke-weed [*See Materia Medica*] has in some instances been employed with good effects. The balsam capivi, in doses of a tea spoonful night and morning is said to be useful in relieving the pain, and will sometimes effect a permanent cure. According to Dr. Thomas, the tincture of fox-glove, given in pretty large and frequent doses, is a remedy both for the external and internal piles.

When the tumors will not yield to the external applications above recommended, anoint them night and morning with the mercurial ointment, to which may be added one-fourth opium.

If the blind piles encompass the anus so as to prevent the discharges by stool, and prove otherwise troublesome, the largest may be removed by a ligature. If the distend vein is high and inflamed, it may be opened with a lancet. When from long continued piles a fistula is apprehended, *Ward's paste* is sometimes useful. It consists of a pound of elecampane root, with half as much black pepper, and a pound and a half of fennel seeds, made into a paste with honey. Perhaps the remedy of the honorable John Taliaferro, for whitlow, might be useful in this case.

When the piles are apparently continued from relaxation, two drachms of the tincture of steel, with nearly the same quantity of laudanum and four ounces of barley water or thin starch may be injected as a clyster, morning and night.

Prevention. Those who are subject to this distressing complaint, may be assured of preventing its recurrence, by keeping the bowels in a soluble state, with the occasional use of sulphur at bed-time, by washing the fundament night and morning with the coldest water, and by making use of a sponge absorbed with cold water, after obeying the calls of nature.

DYSENTERY,

OR BLOODY FLUX.

Symptoms. A discharge of mucus by stool often bloody—violent gripings—pain in the loins—a constant inclination to go to stool, without being able to void any thing; and sometimes fever.

Causes. Putrid air and aliment—green fruit—strong cathartics—obstructed perspiration, and whatever increases the natural irritability of the intestines.

Treatment. To conduct the patient safely through this disease, the bowels should be evacuated by calomel, castor oil, or the cathartic mixture, and if the patient be of an inflammatory disposition, or there be febrile symptoms, blood-letting will also be required. After the acrid contents of the stomach and intestines have been evacuated, the anodyne sudorific bolus or draught [*See Dispensatory*] may be given at bedtime; and on the following day, if there be no evacuation of a natural appearance, one or other of the above aperient medicines must be exhibited in small doses, until the desired effect is obtained.

To produce a natural evacuation daily, is a circumstance of the greatest importance in this disease, and should, at all times, be kept in view. To neglect this, as my good old friend, Doctor Henry Stevenson, of Baltimore, used often to say, would be like "*Locking the thief in the house, to do all the mischief he could.*" It is sometimes proper, instead of bleeding, to give an emetic in the beginning of the disease, to persons of weak habits; but where there is a great degree of irritability of the stomach, or obstructions of the liver, vomiting will do more harm than good.

It is my usual practice, at the commencement of this complaint, to administer to adults about a scruple of calomel, conjoined with five or six grains of ipecacuanha, or a grain of tartar emetic, and in a few hours afterwards, or if the medicine be taken at bed-time, on the next morning, to give a small dose of epsom salts or castor oil. With children, calomel, in large doses, united with a small portion of ipecacuanha, are the principal medicines I employ, as it is difficult to prevail on them to swallow either the salts or castor oil. This mode of practice, together with a plentiful exhibition of arrow root, the occasional use of the warm bath, and after the inflammatory symptoms subside, an opiate at bed-time, has uniformly succeeded. When the febrile symptoms justified the use of the lancet, it was, of course, resorted to in the early stage of the disease. By conjoining the ipecacuanha with calomel or opium, a determination to the skin is produced, which is very desirable in this complaint. It should be remarked, however, though diaphoretics are indispensable, yet the patient should not be suffered to sweat profusely. The object is rather to produce a general relaxation, than to weaken by the discharge. A soft pulse, and moist skin, are the chief signs of the good effects of the remedies employed, and of a certain amendment.

When the disease is epidemic, after having premised the necessary evacuations, calomel is most to be depended on, in doses of four or five grains, combined with Dover's powder, the anodyne sudorific bolus, or with one or two grains of opium alone, exhibited every night. And when the calomel does not produce a natural evacuation, it is always proper to give a small dose of epsom salts, castor oil, or one or two wine glasses of the cathartic mixture, every morning, until the disease begins to yield.

If acidity prevails in the stomach and intestines, as marked by oppression, heat, sour belching, and vomiting, and excoriations about the fundament, besides a liberal use of mucilaginous and sheathing drinks, a wine-glassful of the absorbent mixture, [*See Dispensatory*] or a spoonful or two of new milk and lime water, should be given every two or three hours. Frequent injections of cold water alone, or flaxseed tea, or barley water, with a table-spoonful of laudanum, are of infinite service when the pain in the bowels and tenesmus are distressing.

In obstinate cases, or when there is the least apprehension of an inflammation of the bowels, the warm bath or local fomentation to the belly, and afterwards, a blister, are indispensable. At the close of the disease, or when it indicates symptoms of a putrid nature, the charcoal, columbo, bark, and wine, are the appropriate remedies; and as a purge, rhubarb may be employed. Children that have been very much emaciated by this disease, have been most wonderfully restored to health, by bathing them night and morning in a strong decoction of oak bark [*See Materia Medica.*] impregnated with whiskey or common spirits, and by putting on them bark jackets as advised in the ague and fever.

Doctor Mosely, a physician of great celebrity, states, that in chronic dysentery, unattended with fever, there is not a more efficacious medicine than the vitriolic solution. [*See Dispensatory*] in doses of a table-spoonful every morning, with an opiate at bed-time.

In preparing this solution, the proportion of either the vitriol or alum may be increased or diminished according to circumstances; that is, when evacuations are required, the quantity of alum may be diminished, or entirely omitted, and when great astringency is required, the quantity of alum is to be increased, and the vitriol diminished.

A simple, though efficacious remedy in this disease, is a solution of common salt in vinegar or lemon juice, termed antidysenteric mixture. [*See Dispensatory.*] This medicine has also been strongly recommended in bilious fever, or putrid sore throat, when the bowels are in an irritable state. Dewberry is likewise a valuable medicine in this distressing disease. [*See Materia Medica.*]

Regimen. In the violence of this disease, the diet should consist only of arrow root, sago, panado, or gruel, and the drinks of a cooling and sheathing nature, as barley or rice water, flaxseed tea, or mucilage of gum-arabic, or sassafras. [*See Materia Medica.*] But when the disease has existed some time, the diet should be more nourishing, particularly if the patient has been weakened by preceding disease, or is either of a tender or an advanced age. Oranges, and whatever ripe fruit the season affords, may be allowed.

The room should be constantly fumigated with vinegar, and well ventilated. The clothing, as well as the bedding, ought to be often renewed, and all offensive odors, particularly the fæces, should be removed as speedily as possible.

Prevention. The same means of prevention are here to be used, as under the head of bilious fever, and as this disease becomes infectious, by neglect of cleanliness, its further progress through the medium of bad air, may be checked by attending to the mode of purifying that element prescribed under the head of nervous fever.*

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* It was this disease, which carried from the honors of this, to the glories of a better world, the illustrious author of the Declaration of Independence, Thomas Jefferson. His disorder assumed a serious character on the 26th of June, 1826. The strength of his constitution and his freedom from pain, for a short time, encouraged the hope that his illness was merely temporary. He himself, however, felt the conviction, that his last hour was approaching. He had already lived beyond the limit ordinarily assigned to human existence, and, for some months past, he had looked forward to its termination, with a calmness and equanimity worthy of his past life, nunc dimitatis, domina, &c. "Lord, now lettest thou thy servant depart in peace," the beautiful ejaculation of the just and devout Hebrew, was his favorite quotation. On the 2d of July, the complaint left him; but his physician expressed fears that his strength might not prove sufficient to restore him from the debilitated state to which he was reduced. Conscious that he should not recover, and free from pain, he calmly gave directions relative to his coffin and interment, which he requested might be at Monticello, without pomp or parade. On Monday, the following day, he inquired, with much solicitude, of those around him, what was the day of the month? On being told that it was the 3d day of July, he eagerly expressed his desire that he might be permitted to live yet a little while, to breathe the air of the fiftieth Anniversary. His desire was gratified. He was sustained up to the very moment when his wishes were complete, and was then borne to that world, where the pure in heart meet their God. Of Mr. Jefferson's public virtues and services, it were superfluous for the author to speak. History has taken charge of them. His excellent and amiable life, his warm and unvarying attachment to his friends, his liberal aud unaffected hospitality, and his singular moderation and equanimity are also known to all, and by all, and held in pleasing but mournful remembrance. None was ever more illustrious in life; none was ever more happy in death.

On the same day died the venerable compatriot of Mr. Jefferson, the Ex-President, John Adams. Mr. Adams felt the gradual decay of age affecting his body rather by insensible degrees, than by any

APOPLECTIC FITS.

Symptoms. Sudden falling to the ground, with a deprivation of sense and motion, attended by deep sleep and noisy breathing, the circulation remaining unimpaired.

Causes. Plethora; hard drinking; too large doses of opium—blows—tight neck-cloths, or whatever interrupts the return of the blood from the head.

Treatment. In the cure of a disease threatening such sudden fatality, remedies must be speedily employed. The patient's head should instantly be raised and supported, and he be placed in a situation where he can respire a cool air. He is to be bled most copiously, to the amount of a quart or more, and this must be repeated after a short time, if he is not relieved, especially if the disease occur in a person of robust and plethoric habit. Cup also on the temples. Brisk purges are next to be administered, and when these cannot be swallowed, the most stimulating injections should be thrown up.

Where the disease depends rather on a depletion of the blood vessels, than on too great fulness, which may be known by its attacking old people of debilitated habits, bleeding is sparingly to be resorted to, particularly if the countenance

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settled infirmity. He did not, till a few days before his death, show any indication of a more rapid decay of health than usual. The fourth of July found him unable to rise from his bed, on account of an unusual degree of debility. Roused by the sound of distant artillery, he said, "it is a glorious day." Being afterwards asked for a toast, to be drank by his neighbors, he said, I will give them "independence for ever." These were his last intelligible words: about four o'clock, in the afternoon, this ancient patriot joined the throng of "just men made perfect." Great and glorious was the consummation of these renowned founders of American Liberty. They finished their course, when they reached the Jubilee of that Independence which they had, in so great a measure, contributed to establish. They departed, (to use the language of our present honored Chief Magistrate, the distinguished son of John Adams,) cheered by the benedictions of their countrymen, to whom they left the inheritance of their fame, and the memory of their bright example.

appears to be sunk and palid. In these cases, the patient ought to be laid on a bed, with his head elevated, and turned every hour. Clysters are then to be given, and as soon as liquids can be swallowed, the contents of the stomach and bowels should be evacuated by a brisk purge.

Sinapisms and blisters to the extremities, should not be neglected. But scalding or searing the soles of the feet with a hot iron, will more certainly and suddenly rouse the torpid system.

Regimen. The diet should be of the lowest kind, consisting principally, for several days after the attack, of diluent drinks, such as rice or barley water, tamarind water, flaxseed tea, &c.

Prevention. In full habits, let the diet be light and sparing, and the bowels kept open. In debilitated habits, the diet should be more nourishing, and the strengthening medicines, as bark, steel, &c., employed to give tone to the vessels.

EPILEPTIC FITS.

Symptoms. The patient falls suddenly with a deprivation of sense, while the muscles of the face and every part of the body are violently convulsed.

Causes. Excessive drinking—sudden stoppage of the courses—severe fright—injuries of the head—teething in children—and irritation from worms in the stomach and intestines.

Treatment. To prevent the patient from injuring himself by the violence of his struggles, he ought immediately to be placed on a bed. The clothing should be every where loosened, and the head moderately elevated. A slip of wood should be placed between the jaws to prevent their closing on the tongue, and nothing administered in a glass vessel. Should it appear that the patient has been drinking too freely of spirituous liquors, or has loaded his stomach with indigestible matter, a strong emetic should be immediately given, which, by cleansing the stomach, will often terminate the paroxysm.

If suppressed evacuations are the cause, they must be re-excited by such means as are calculated to restore the course of nature. If the patient complain of pain in the head, a seton in the nape of the neck should not be omitted. If worms be the fault, which may be known by an offensive breath and irregular appetite, they must be removed before a radical cure can be effected.

The suppression of cutaneous affections has occasioned the disease; the repulsion of the gout; and sometimes the deficiency of the constitutional strength, which prevents its formation, has had the same effect. In all these instances the knowledge of the cause will suggest the means of relief.

When causes of debility and irritability, produce epilepsy; in other words, when the irritability is so great, that the slightest irritation will induce the fits, the remedy is equally obvious. Warm generous diet, which may appear at first indicated, must be used with caution, since a fulness of the vessels is, alone, in tender habits, a cause of irritability. Tonic medicines, with some of the narcotic bitters, as hops, iceland liverwort, and lettuce, are the best remedies in such cases, anxiously guarding as usual against any accumulations in the head; but not by such medicines as will weaken.

Sometimes an epileptic fit is preceded by an uneasy sensation in some of the limbs or trunk of the body, creeping upwards to the head. In this case, the fit will be prevented by applying a ligature above the part so affected.

Many cases have occurred, in which this disease has been cured with the sugar of lead, particularly under the age of maturity. It should be commenced in small doses, beginning with one-fourth of a grain, for a half grown person, and gradually increased to two grains or more, thrice a-day, made into pills with the crumbs of bread. If from using this medicine the bowels are disordered, it should be laid aside until relief is obtained by the use of the bath, mild laxatives, and opium in more than usual doses. A small portion of opium, combined with the lead, [*See Dispensatory*] will generally obviate or correct its unpleasant operation.

The good effects of nitrate of silver, commonly called lunar caustic, have also been attested by eminent physicians, in doses from one-fourth, very gradually increased to a grain, twice a-day, made into pills with bread. The flowers of zinc have likewise been highly spoken of, and are said to have performed permanent cures, in doses of six or eight grains, morning and night.

As there is incontrovertible evidence, that these medicines have succeeded in certain cases, they are all deserving of a fair trial, particularly in the treatment of a disease in which no plausible remedy should be left untried.

FAINTING FITS.

Symptoms. The pulse and respiration suddenly becomes exceedingly feeble, insomuch, at times, as to create a fear of the total extinction of life.

Causes. Fright—long fasting—large evacuations—debility, &c.

Treatment. The patient should be placed in a reclining posture, and every part of the clothing, which by its tightness is likely to interrupt the free circulation of blood, must be immediately loosened. The doors and windows of the room, especially if the weather be warm, should be kept open, and no more persons admitted than are necessary to give assistance; and these should not prevent the free access of the air to the patient.

Sprinkle the face with cold water or vinegar, and apply volatiles, burnt linen, or feathers, to the nostrils; and that the stimulus may with more certainty be inhaled, the patient should be kept from breathing through the mouth, by holding a handkerchief forcibly against it, taking care, however, to leave the nostrils perfectly free.

HYSTERIC FITS.

THIS disease more frequently occurs in the unmarried or barren women, and those who lead a sedentary life. It very seldom appears before the age of puberty, or after the age of thirty-five years. The time at which it most readily occurs, is that of the menstrual period.

SYMPTOMS. Generally commences with universal languor and coldness of the extremities. The colour of the face is variable, being sometimes flushed and sometimes pale. The pulse becomes unequal and obscure. The stomach is sometimes affected with vomiting, the lungs with difficulty of breathing, and the heart with palpitations. A painful sensation is often felt, like that of a globe or a ball in the left side of the belly, advancing upwards, and producing the same uneasiness in the stomach, from which it rises in the throat, occasioning by its pressure, a sense of suffocation; when a degree of fainting comes on, certain convulsive motions take place, agitating the trunk of the body and limbs in various ways; after which, alternate fits of laughter and crying occur, and a remission then ensues. In some patients, a violent beating pain takes place in some part of the head, as if a nail was driving into it. Sharp pains, likewise, attack the loins, back, and bladder, and the patient makes an unusual quantity of urine as limpid as water; which is one of the most characteristic signs of the disease.

The appearances which take place in this affection, are considerably varied in different persons, and even in the same persons at different times. It differs by having more or fewer of those circumstances above mentioned; by those circumstances being more or less violent, and by the different duration of the whole fit.

CAUSES. Excessive evacuations, particularly of the menses, depressing passions, continued anxiety, violent excitement, sudden surprise, grief, indigestion, &c.

TREATMENT. If the patient be young and of a plethoric habit, blood-letting will be required during the fit; but in delicate constitutions this operation is not advisable. Volatiles, singed feathers, and the like, should be applied to the nostrils: and if the patient can swallow, a tea-spoonful of æther, or tincture of assafœtida, or thirty or forty drops of laudanum, may be given, in a glass of cold water, and repeated in a couple of hours, or sooner, if necessary. Clysters of gruel, to which may be added a tea-spoonful or two of laudanum, will also have a good effect. The feet and legs should, as soon as possible, be put in warm water, and well rubbed with the hand. Cold water sprinkled on the face, and the admission of the cool air in the room, are likewise proper auxiliaries.

During the intermission of the fit, the nervous system should be strengthened to prevent a recurrence, by the tonic powders, pills, or drops, [*See Dispensatory*] in their usual doses, after having administered some purgative medicine.—Upon the approach of any languor, the patient should instantly take a glass of wine, or a tea-spoonful of lavender, or ten or twelve drops of laudanum in a glass of cold water.

When hysteric affections originate from a suppression or obstruction of the menses, these must be promoted by adopting the means advised under those heads.

REGIMEN. An attention to diet is highly proper for the removal of this disease. A milk and vegetable diet duly persisted in, will have the most salutary effect, especially in sanguine constitutions; but should vegetables create flatulency and acidity in the stomach and bowels, in such cases animal food will be the most appropriate diet. The best drink after dinner is water with a little good wine, or a smaller quantity of old spirits.

Tea should be prohibited altogether, or used sparingly.—Moderate exercise, particularly riding on horseback, is of the greatest service, as are likewise amusements and cheerful company.

PALSY,

Is a disease consisting in a loss of the power of voluntary motion, but affecting certain parts of the body only, and by this it is distinguished from apoplexy. In the most violent degrees of palsy, the patient loses both the power of motion, and sense of feeling, either of one side, or the lower half of the body. The first is termed *hemiplegia*, the latter *paraplegia*. When it affects any particular parts only, as the tongue, the lip, eye-lid, &c., it is termed a local palsy.

Symptoms. If this disease be not the effect of apoplexy, it is often preceded by universal torpor, giddiness, a sense of weight or uneasiness in the head, dulness of comprehension, loss of memory, and a sense of coldness in the part about to be affected; there is also, sometimes tremor, creeping, and pain in the part.

Causes. Compression of the brain from any of the causes inducing apoplexy—certain poisons received into the body, as lead, arsenic, &c.—injuries done the spinal marrow.—It is also produced in consequence of extreme debility, and old age.

Treatment. If palsy arises from the causes producing apoplexy, it must necessarily be treated in the manner recommended for the care of that disease, by bleeding copiously in full habits, and keeping the bowels in a laxative state for many days.

It will also be requisite to apply a large blister to the back of the neck, and when the discharge is lessened, others should be applied behind each ear. After congestion is removed by this mode of treatmént, it will then be necessary to commence with the stimulating plan, in order to rouse the torpid vessels into action. When stimulants are resorted to, they should be changed every eight or ten days, and sometimes alternated with gentle laxatives, to prevent returns of accumulation on the brain.

In some instances this disease arises from diminished energy of the brain, and in such cases we must have recourse to stimulants, both internally and externally, without delay. In this state the essential oils and balsams are frequently employed with good effects. One of the most active and useful medicines of this class is the spirit of turpentine in doses from twenty to sixty drops thrice a-day. A table-spoonful of horse-radish scraped, or the same quantity of mustard-seed, swallowed three or four times a-day, will have a good effect. The volatile alkali is also of infinite service in large doses. At the same time, external stimulants must be duly attended to, such as dry frictions over the part affected, with a flesh brush or rough cloths, and the flour of mustard, or flannels impregnated with the tincture of cayenne pepper, oil of turpentine, oil of sassafras, or volatile liniment, or some of the tincture of cantharides. Stimulating the part with nettles has produced good effects, as well as electricity, particularly in local palsies.

A seton in the neck, particularly if the patient is affected with giddiness, will afford considerable relief, and should not be neglected. Cases of palsy have been cured by salivation.

If the disease is in consequence of a curvature of the back bone, compressing the spinal marrow, a perpetual blister or issue over the part affected, or on each side of the diseased portion of the bone, is the only remedy. A local palsy, particularly when it is confined to one muscle, will generally yield to the application of a blister as near to the part affected as possible.

Regimen. In plethoric habits the diet should be of the lightest kind, but quite the contrary in debilitated habits. In such cases the diet should be warm and strengthening, seasoned with spices and aromatic ingredients, and the drink must be generous wine, mustard whey, ginger tea, or brandy and water. Flannel wore next the skin is peculiarly proper, so is regular exercise, when not carried to fatigue, or used in a cold damp air.

HYPOCHONDRIAC DISEASE.

(Commonly called Vapors, or Low Spirits.)

This complaint chiefly occurs in the male, and that at advanced life; and it is confined, for the most part, to persons of a sedentary or studious disposition, especially such as have indulged grief or anxiety.

Symptoms. Languor, listlessness, or want of resolution and activity, with respect to all undertakings—a disposition to seriousness, sadness, and timidity as to all future events—an apprehension of the worst or most unhappy state of them, and therefore often, on slight ground, a dread of great evil. Such persons are particularly attentive to the state of their own health, and to the smallest change of feeling in their bodies, from any unusual sensation, perhaps of the slightest kind, they apprehend great danger, and even death itself; and in respect to all their feelings and apprehensions, there is, for the most part, unfortunately, the most obstinate belief and persuasion.

This diseased state of mind is sometimes attended with symptoms of indigestion, hysterical affections, and sometimes with melancholy; but these are merely effects.

Causes. Indolence—violent passions of the mind—suppression of customary evacuations—obstructions of some of the viscera, &c.; but its immediate cause appears to be a loss of energy in the brain, or torpid state of the nervous system. It would appear, however, that these complaints proceed from an original affection of the stomach.

Treatment. The cure of this disease seems to depend on exciting the nervous energy which is depressed, and that particularly by attending to the state of mind.

A constant state of motion should therefore be advised, especially by riding on horsebsck. and making long journies which presents new objects to the view.

Nothing is more pernicious in this disease, than idleness; but in avoiding it, all application to former studies are to be prevented. . The present emotions must be favored and indulged: and though an attempt should be made to withdraw the attention of such patients from themselves, yet their confidence ought first to be gained; and since the persuasion of their own opinion is strong, and the infallibility of their own fears and sensations rooted, however absurd these may be, they require a very nice management.* Raillery must never be attempted. From this supposed bodily affection, the mind should be diverted by employments suitable to the circumstances and situation in life, and unattended with much emotion, anxiety, and fatigue. Company which engages attention, and

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* Some hypochondriacs have fancied themselves miserably afflicted in one way, and some in another—some have insisted that they were TEA POTS; and some, that they were TOWN CLOCKS,—this, that he had a big belly, and that his legs were glass—one that he was extremely ill, and another that he was actually dying. But I have never heard of any of this blue-devil class, whose extravagance ever yet came up to the following, which was related to me by my noble-hearted old friend, the late Dr. Stevenson, of Baltimore, whose very name always sounds in my ears as the summary of every manly virtue.

This Hypochondriac, who, by the bye, was a patient of Dr. Stevenson, after ringing the change on every mad conceit that ever tormented a crazy brain, would have it at last that he was dead, actually dead. Dr. Stevenson having been sent for one morning in great haste, by the wife of his patient, hastened to his bed side, where he found him stretched out at full length, his hands across his breast, his great toes in contact, his eyes and mouth closely shut, and his looks cadaverous.

"Well, sir, how do you do? how do you do this morning?" asked Dr. Stevenson, in his blustering jocular way, approaching his bed. "How do I do," replied the Hypochondriac, faintly—"a pretty question to ask a dead man." Dead!" replied the Doctor. "Yes, sir, dead, quite dead. I died last night about twelve o'clock."

Quick as lightning, Dr. Stevenson caught his cue, which was to strike him on the string of his character; on which, the Doctor happily recollected he was very tender. Having gently put his hand on the forehead of the Hypochondriac, as if to ascertain whether it was cold, and also felt his pulse, he exclaimed, in doleful note, "Yes, the poor man is dead enough—it is all over with him, and now the sooner he can be buried the better." Then stepping up to his wife, and whispering her not be frightened at the measures he was about to take, he called to the servant, "My boy, your poor master is dead, and the sooner he can be put in the ground the better. Run to Mr. C——m, for I know he always keeps New-England coffins by him, ready made; and, do you hear, bring a coffin of the largest size, for your master makes a stout corpse, and having died last night, and the weather warm, he will soon begin to smell."

Away went the servant, and soon returned with a proper coffin.—The wife and family having got their lesson from the Doctor, gathered around him, and howled no little, while they were putting the body in the coffin. Presently, the pall-bearers, who were quickly provided and let into the secret, started with the Hypochondriac for the church-yard. They had not gone far before they were met by one of the towns-people who, having been properly drilled by the facetious Stevenson, cried out, "Ah Doctor! what poor soul have you got there?"

"Poor Mr. B——," sighed the Doctor, "left us last night."

"Great pity he had not left us twenty years ago," replied the other, "for he was a bad man"

Presently another of the towns-men met them with the same question. "And what poor soul have you got there, Doctor?"

"Poor Mr. B——," answered the Doctor again, "is dead."

"Ah! indeed!" said the other. "And so the devil has got his own at last."

"Oh villain!" exclaimed the man in the coffin, "if I was not DEAD, how I would pay you for that."

Soon after this, while the pall-bearers were resting themselves near the church-yard, another one stepped up with the old question again, "what poor soul have you got there, Doctor?" Poor Mr. B——," he replied, "is gone."

"Yes, and to h---ll," said the other, "for if he is not gone there, I see not what use there is for such a place." Here the dead man bursting off the lid of the coffin, which had been purposely left loose, leapt out, exclaiming, "Oh, you villain! I am gone to h---ll, am I! Well, I have come back again to pay such ungrateful rascals as you are." A race was immediately commenced between the dead man and the living, to the petrifying consternation of many of the spectators, at sight of a corpse, bursting from the coffin, and in all the horrors of the winding sheet, racing through the streets. After having exercised himself into a copious perspiration by this fantastic chase, the Hypochondriac was brought home by Dr. Stevenson, freed of all his complaints. And by strengthening food, generous wine, cheerful company, and moderate exercise, was soon restored to perfect health.

To demonstrate further, the happy effects of possessing quick wit, "to shoot folly as it flies," I will cite another case of Hypochondriasm, which came under the care of that philanthropic and learned physician, the late Doctor Crawford, of Baltimore, who, in every thing amiable and good, was not unlike his intimate friend, Doctor Stevenson.

A certain Hypochondriac, who, for a long time, fancied himself dying of a liver complaint, was advised by Dr. Crawford, to make a journey to the state of Ohio. After an excursion of three months, he returned home, apparently in good health: but upon receiving information of the death of a twin brother, who had actually died of a schirrus liver, he immediately took the staggers, and falling down, roared out that he was dead, and had, as he always expected, died of a liver complaint. Dr. Crawford being sent for, immediately attended, and asked the Hypochondriac how he could be dead, seeing he is at the same time of a cheerful kind, will always be found of great service. The occasional reading of entertaining books, or playing at any game, in which some skill is required, and where the stake is not an object of much anxiety, if not too long protracted, will further assist in diverting the mind from itself.

The symptoms of indigestion, and hysteric complaints, that so frequently attend this state of mind, although the effect, rather than the cause, are objects of practice; inasmuch as they tend to aggravate and realize the false apprehensions of the patient. These secondary affections require the same mode of treatment recommended for indigestion and the hysteric disease. The warm bath is peculiarly beneficial in this complaint, and when the system becomes somewhat invigorated, the cold bath may be employed with advantage, provided there exists no obstructions in the bowels. From an acid acrimony generally prevailing in the stomach, the rust of steel, or filings of iron, in doses of ten grains thrice a-day, is the most salutary medicine of all the tonics. Magnesia and lime water are useful on the same account.

Regimen. A proper diet constitutes an essential part in the treatment of this malady. In general, light animal food is what alone agrees with such patients; for there are few, if any, vegetables which do not prove flatulent in their bowels.—Acids are particularly injurious. All malt liquors, except

could talk. But still he would have it that he was actually dead. Whereupon, the sagacious Doctor exclaimed, "O yes, the gentleman is certainly dead, and it is more than probable, his liver was the death of him. However, to ascertain the fact, I will hasten to cut him open before putrefaction takes place." And thereupon, getting a carving knife, and whetting it as a butcher would to open a dead calf, he stepped up to him and began to open his waistcoat, when the Hypochondriac, horribly frightened, leaped up with the agility of a rabbit, and crying out, "Murder! Murder! Murder!" ran off with a speed that would have defied a score of Doctors to catch him. After running a considerable distance, until he was almost exhausted, he halted; and not finding the Doctor at his heels, soon became composed. From that period, this gentleman was never known to complain of his liver; nor had he, for better than twenty years afterwards, any symptom of this disease.

porter, are apt to excite too high a fermentation in the stomach; and wines, for the most part, are liable to the same objections. If an exception can be made in favor of any, it is good old Madeira, when it can be obtained, which not only promotes digestion, and invigorates the concoctive powers, but acts, immediately, as a generous and wholesome cordial. The use of spirituous liquors is not to be recommended as a habitual resource, though they may be taken occasionally, in a moderate quantity, diluted with water. Tea and coffee, though hurtful to people with bad digestion, are often useful, however, to the hypochondriac. Moderate exercise, we have already observed, is indispensable in the cure of this complaint; and it cannot be taken any way with so much advantage as long journies, when convenient, accompanied with such circumstances, as may convert them into an agreeable amusement.

CRAMP.

A PAINFUL spasm of the calf of the leg or muscles of the toes, and sometimes of the stomach.

CAUSES. Sudden stretching of the limbs—advanced pregnancy—acidity—indigestion, irritation, and debility.

TREATMENT. A cramp of the calf of the leg is best relieved by standing up, which simple act, by throwing the weight of the body on the toes, forcibly extends the muscles, and thus takes off the spasm. If the cramp arises from acidity or indigestion, give every night a pill composed of half a grain of opium, with six grains each, of rhubarb and prepared chalk, and administer ten grains of the rust of steel, morning and noon.

A cramp of the stomach is best treated by an infusion of red pepper, [*See Materia Medica,*] or a large dose of æther or laudanum, accompanied with friction on the part, either by a flesh brush or flannel. When these fail, a very copious bleeding will sometimes remove the spasm, after which the patient must be purged.

The chief remedies of spasm are those which remove the irritating cause. If this cannot be ascertained, we must endeavor to lessen irritability by anodynes. A sudden terror, the apprehension of a severe operation, on the return of the fit and unexpected surprise, have succeeded. Dashing water in the face, touching a person with something cold, or throwing up a cold clyster, have from the same principles, been effectual.

Persons subject to the cramp in the leg may prevent it by wearing stockings in bed, and occasionally rubbing the part with camphorated oil. According to vulgar authority, sulphur grasped in the hand, is good to cure, and carried in the pocket, to prevent cramp.

TETANY, OR LOCKED JAW.

Symptoms. A rigid and painful contraction of all or several of the muscles. Its first symptoms is a stiffness in the back of the neck, increasing to pain, extending next to the root of the tongue, then shooting into the breast, and lastly seizing the back,

Causes. Wounds of the head or extremities—and punctures of the slightest kind, as running a splinter under the nail, or into the toe or finger.

It is equally induced from cold or moisture, particularly when sudden vicissitudes prevail, or sleeping on damp ground

Treatment. On the first appearance of this disease, give one or two table-spoonfuls of laudanum, or six or eight grains of opium every two hours until the symptoms abate, and then the dose should be gradually lessened. Between the doses, wine or spirits should be given very freely. The use of the warm bath will also assist the efficacy of the opium. These remedies should be increased and carried to the utmost extent as the symptoms may indicate. If the opium cannot be swallowed, six times the quantity may be injected in clysters until the patient can swallow.

This disease has oftentimes yielded to a salivation. And when there is time for the operation of mercury, it should be used both internally and externally. At the same time it is advisable to give opium, in more moderate doses.

Dr. Brown, who is now one of the principal professors in the Transylvania University, communicated sometime since, through the medium of the New York Medical Repository, his success in the cure of tetanus with the tincture of cantharides. When recourse is had to this remedy, give from twenty to thirty drops of the tincture every hour until it produces stranguary or a difficulty of urine. As soon as this occurs, it must be discontinued, and flaxseed or marshmallow tea or barley water, or some mucilaginous liquid drank freely, and some of it injected by way of clysters, to which may be occasionally added two tea-spoonfuls of laudanum.

According to Dr. Nathaniel Miller, the solution of arsenic, in doses of ten drops, with an equal quantity of laudanum, and a large spoonful of spirits every half hour, has in several cases of tetanus succeeded admirably in performing a cure.—When the symptoms abate, the dose must be diminished and the medicine gradually discontinued.

Among the various remedies which have been recommended for the cure of tetanus, none has been employed with greater success than the cold bath. This is to be done by plunging the patient in the coldest water, or by pouring suddenly over his head and shoulders several tubs of cold water. The cold bath must be repeated every three or four hours until a perfect cure is effected.

On the decline of the spasm, bark with wine and opiates at bed-time should be given until the patient's health is reinstated.

Spirits of turpentine and infusion of tobacco [*See Materia Medica*] have each been administered by way of injection with very happy effects in this alarming disease.

In every stage of the disease, it is of importance to keep the bowels open, by the usual stimulating purgatives or clysters.

When local injuries have been the cause of this disease, the wound should be dilated and filled with common salt, Spanish flies, or turpentine, and afterwards dressed with warm poultices until the wound be brought to a state of good digestion. If a wounded finger or toe be the cause of this horrible malady, it ought instantly to be cut off.

PALPITATION OF THE HEART.

Symptoms. In this disease, the motion of the heart is performed with more rapidity, and generally with greater force than usual, which may not only be felt by the hand, but often be perceived by the eye, and even heard; there is frequently a difficulty of breathing, a purplish hue of the cheeks and lips, and a variety of anxious and painful sensations. It sometimes terminates in sudden death.

Causes. A morbid enlargement of the heart itself, and of the large vessels—organic affections—an hereditary disposition—plethora—debility, or a morbid condition of the system—mal-confirmation of the chest, and many of the causes inducing fainting.

Treatment. This complaint is best relieved by keeping the mind and body at rest, avoiding every cause of irritation, and keeping up a proper equilibrium of the circulation.

When the disease arises from plethora, and the action of the heart is violent, bleeding is indispensible, which should be followed by a cooling cathartic, and afterwards the exhibition of nitre every two or three hours, or the tincture of digitalis, in doses from ten to twenty drops thrice a-day, by lessening the action of the arterial system will effect a cure.

When there is reason to believe this affection is in consequence of debility, the solution of arsenic in its usual doses, taken for some time, is a certain remedy. When the nervous system is affected, small doses of æther, laudanum, or some cordial will be found very serviceable.

The feet should be kept dry and warm, frequently rubbed, and if not otherwise warm, with powdered mustard seed, or tincture of cayenne pepper.

Those who are subject to a palpitation of the heart should carefully avoid violent exercise, irregular passions, costiveness, and all circumstances that may tend to increase the action of the sanguiferous system.

HICCUP.

A spasmodic affection of the diaphragm, and sometimes of the stomach, is a troublesome, but not often a dangerous complaint.

Causes. Debility, acidity, flatulence, cold drinks when the person is warm, repletion, worms, repelled gout, &c.

Treatment. When it arises, as is most frequently the case, from spasm induced by debilitating causes, the warm antispasmodics, as æther, laudanum, the camphorated mixture, hartshorn, tincture of assafœtida, or some of the essential oils, will be useful. A tea-spoonful of vinegar, slowly swallowed, has frequently afforded relief. Preserved damsons have likewise been found of excellent use in this complaint.

When acidity is discovered to be the cause, give the absorbent mixture, or twenty drops of hartshorn, with a teaspoonful of magnesia in a cup of mint tea, or a spoonful or two of milk and lime-water; and to prevent its recurrence take ten grains of the rust of steel thrice a-day. When occasioned by poisons or improper food, an emetic will be proper.

In weak stomachs, oppressed with indigestible food, a glass of good wine or spirit and water often relieves. Æther applied externally to the stomach on a soft linen rag with a warm hand to confine it, is a good remedy; so is the application of an acrid cataplasm or blister in obstinate cases.

Like other spasms, it is often stopped by strongly arresting the attention, whether by hope, fear, or terror. A sudden alarm has often succeeded in curing this affection after every other means had failed. On the same principle a deep continued inspiration will often remove slighter degrees of this troublesome complaint.

NIGHT MARE.

Symptoms. An alarming oppression of weight about the breast, with dread of suffocation.

Causes. Late and excessive suppers—great fatigue—drunkenness, or sleeping on the back.

Treatment. If the patient be of a plethoric habit, bleed, purge, and use a spare diet. And when the disease is the consequence of debility and weak nerves, the tonic medicines, as steel, bark, or columbo in their usual doses, are proper.

A glass of brandy, at bed-time, will generally prevent the attack.

Prevention. The patient should sleep on a hard bed, which invites to frequent changes of sides, eat light suppers, which, with due exercise, and cheerfulness during the day, form the best preventive remedies.

ASTHMA,

Is often hereditary. When attended with an expectoration of phlegm, it is termed *moist* or *humeral;* and when with little or none, *dry* or *nervous* asthma.

Symptoms. It generally attacks at night with a sense of tightness across the breast, and impeded respiration. The person thus taken, if in a horizontal situation, is obliged immediately to get into an erect posture, and solicits a free and cold air. In violent paroxysms, speaking is difficult and uneasy.

Treatment.* On the *first attack* of asthma, bleeding is serviceable, if the pain in the chest and difficulty of breathing be considerable; but less so afterwards, since the disease has a natural tendency to take off the plethoric state of the system.

Vomits frequently repeated have been found of considerable utility in this disease. When there is reason to apprehend a paroxysm in the course of the night, an emetic exhibited in the evening will generally prevent it; and when the fit comes on in consequence of a loaded stomach, it will often afford immediate relief.

As in other spasmodic affections, the most powerful antispasmodics, as laudanum and æther, should be resorted to. These may be given conjointly or separately, but in large doses, to allay the violence of the fit, or to prevent its accession. Thus, half a tea-spoonful of laudanum, or one of æther, to be repeated in an hour, if necessary, in a glass of cold water, has frequently relieved the symptoms, or when taken at the approach of the fit, have suppressed it altogether. A cup of strong coffee has sometimes afforded great relief; and when the disease proceeds from the irritation of mucus, a table-spoonful or two of vinegar in a glass of cold water is a good remedy.

The skunk cabbage and stramonium, or thorn apple, are considered most valuable antispasmodics, and exceedingly beneficial in this complaint. According to Dr. Cutler, the emetic weed, or Indian tobacco, [*See Materia Medica*] is a certain remedy. And Dr. Thomas speaks highly of the efficacy of the tincture of fox-glove, in doses of fifteen drops twice a-day, conjoined with a few drops of laudanum.

In every stage of this disease the bowels must be attended to. The connexion of asthmatic paroxysm, with flatulence and costiveness, plainly points out the importance of aperient medicines and those of the warm class, as aloes and rhubarb.

Expectorants are frequently required in this disease. The powder, or sirup of squills, or gum-ammoniac exhibited in rather larger doses than usual, will often bring on expectoration, in cases apparently desperate.

Blisters near the back are singularly useful, and should be often repeated. Cataplasms of garlic or onions to the feet are also valuable assistants.

Regimen. A light diet, easily digestible and not flatulent, is always proper for asthmatic persons, and during the fit, cool drinks and fresh air are proper. It will always be found serviceable to wear a flannel shirt and to keep the feet warm.

Prevention. During the absence of the paroxysm, tonic medicines and the cold bath, together with moderate exercise, will be most efficacious in obviating its recurrence.

HEART-BURN.

Symptoms. A burning sensation about the pit of the stomach, with acid eructations, flatulence, and sometimes retching to vomit.

Causes. A relaxed state of the stomach, generating acidities and acrimonies from food too long detained. As it is often a symptom of indigestion, the cause may be found under the head of the following chapter.

Treatment. The first indication is to remove the unpleasant sensations existing, which may be done by taking either a small tea-spoonful of salt of tartar, or a table-spoonful of magnesia in a glass of mint-water or tea; or a tumbler of mucilage of gum-arabic or flaxseed tea taken cold, with a small piece of liquorice ball dissolved in it. But to cure the disease effectually, after an emetic, give the lime water, or ten grains of the rust of steel, thrice a-day for some time, and keep the bowels moderately open with magnesia or the root of rhubarb chewed occasionally, or the tincture of it, taken in small doses; or the aloetic pill.

If it should arise from bile, lemonade, or some of the vegetable acids, or a tea-spoonful of the spirits of nitre in a glass of the infusion of columbo, will often afford immediate relief.

When not arising from the contents of the stomach, general warmth, particularly of the feet, is essentially useful; and even rubbing them with flour of mustard, or tincture of cayenne pepper, has produced good effects. Great benefit has also been experienced, and sometimes a complete cure affected, by the application of a blister to the pit of the stomach. To render it the more efficacious, the blister should be kept running for at least a week.

Regimen. The diet of those who are subject to this complaint, should consist chiefly of animal food; and all fermented or acid liquors and greasy aliment must be strictly avoided. A glass of brandy, or gin and water after dinner, is the best beverage. Moderate exercise is particularly beneficial.

DISPEPSIA, OR INDIGESTION.

Symptoms. Want of appetite—nausea—sometimes vomiting—heart-burn—costiveness—distensions of the stomach, particularly upon taking a small quantity of food—frequent risings into the throat of a sharp acid liquor, and eructations of imperfectly digested matter.

Causes.—Errors and irregularities in the mode of living—cold and moisture—intense study—depressing passions—and abuse of tobacco, opium, or spirits.

Treatment. To succeed in the cure of this disease, we must avoid the occasional causes, remove such symptoms as tend to aggravate or continue the disease, and invigorate the tone of the stomach. Crudities, acidity and costiveness, must be obviated, at least in their excess, as they tend both to aggravate and continue indigestion. The management of diet is also of considerable importance. The stomach should never be suffered to remain any time empty in dyspepsia, as all the symptoms are aggravated by it. Persons afflicted with this complaint, should frequently eat a cracker or a piece of ship biscuit, as bread not subject to fermentation, is one of the best substances to be frequently taken. In some weak stomachs a singular aggravation of the symptoms comes on in about an hour or two after a full meal, attended with a sense of sinking or weakness. This seems to be owing to a digestion unusually rapid, and consequently imperfect. In such cases aliment of more difficult digestion, as eggs boiled hard, or the addition of condiments which retard digestion may be allowed; but in general, a bit of biscuit and a glass of wine will remove the sense of weakness which is owing to the sudden emptying of the stomach before too much distended.

In order to the cure, recourse must be had to emetics, whenever the stomach is offended with mucus, bilious, or other humors. It is not unusual that a large quantity of very viscid mucus is thrown up on the exhibition of an emetic. And this must occasionally be discharged, and its accumulation prevented by aromatics and tonics.

The columbo root is a medicine of great utility, when the stomach is languid, and the appetite defective. It may be given thrice a-day, in substance or infusion, with mint water, or ginger tea, or infused in Madeira wine, or French brandy, now and then interposing small doses of the tincture of rhubarb. Taking a tea-spoonful of mustard seed with half the quantity of columbo thrice a-day, will be found particularly useful, where acidity and flatulence prevail. A great variety of stomachics and tonics of the vegetable class, as camomile, gentian, quassia, Peruvian, and black oak bark, have been employed in the cure of this disease, but scarcely any merits a preference to the columbo, unless the sampson snakeroot. [*See Materia Medica.*] However, it is not proper to continue the use of any tonic longer than two weeks at a time. When acidity predominates, a wine-glass of lime water, with an equal quantity of new milk, or ten grains of rust of steel or filings of iron, will be found exceedingly beneficial.

In some cases the digestion is injured by putrid matter, from decayed teeth, constantly mixed with the saliva, affecting the organs of taste, and destroying the appetite. In such cases, the charcoal tooth powder, [*See Dispensatory*] or washing the mouth night and morning with the solution of alum, will correct this tendency. Even when the teeth could not be the cause of indigestion, I have seen the most happy effects result from the exhibition of charcoal powder, in doses of a table spoonful, twice or thrice a-day, particularly when conjoined with a few grains of rhubarb, and double the quantity of powdered ginger, or by taking, after dinner, as much of the tincture of rhubarb as would keep the bowels in a regular state. Another medicine, apparently simple, though of considerable efficacy in this complaint, is the cob-web of the black spider, which generally inhabits the cellars, barns, and stables. Of this, from five to ten grains is to be given morning, noon, and night, in the form of pills.

If the disease, as is too often the case, has been brought on by hard drinking, its only radical cure is to be found in temperance, cordial nourishment, exercise, and the use of elixir vitriol with bark, the nitric acid or the tonic powders or pills. [*See Dispensatory.*]

When the patient complains of a pain in the stomach, resort to the remedies for heart-burn, and use friction with a flesh brush or flannel over the part. Should this fail, give a dose of æther or laudanum; and, in case of costiveness, administer an injection. This treatment will generally palliate the pain.

after which, endeavor to restore the tone of the stomach by tonic medicines, as the nitric acid, bark, columbo, steel, &c.

The costiveness peculiar to persons in this complaint, must be removed by medicines which gently solicit the intestines to a more regular discharge of their contents; and this effect is best obtained by flour of sulphur, magnesia, or rhubarb chewed every day, and only the saliva swallowed. Strong purgatives are unfit to correct habits of costiveness, as they weaken the action of the intestines, and thereby increase the complaint when the evacuation is over.

But nothing can so effectually obviate this affection, as constant custom most sacredly observed, of going every morning to the privy, although you have not a natural inclination.

Regimen. The diet should consist chiefly of animal food well chewed, and taken in small quantities, followed with a glass of brandy and water, or good wine. Frequent friction with a flesh brush or flannel over the region of the stomach and belly will be found exceedingly beneficial.

After taking a puke, we have known a milk diet, persevered in for several weeks, effectually cure indigestion. This article, almost always offends the stomach at first; but by continuance, becomes agreeable to it, and effects a cure. The milk should be new, and free from acidity.

Early rising and moderate exercise in the morning air can hardly be enough recommended, inasmuch as they contribute so happily to restore the tone of the stomach, as also the whole system.

It is impossible to furnish a plan of regimen adapted to every constitution and habit, but if the patient will but pay due attention to what benefits, and what injures him, wisely regulating his mode of living by the informatiom thus obtained, his present maladies will soon disappear, and their future recurrence forever inhibited.

COLIC.

Symptoms. A violent pain in the bowels originating from constriction, attended with costiveness, and sometimes vomiting. The pain is commonly seated about the navel, and resembles various sensations, as of burning, twisting, boring, or a ligature drawn very tight across the intestines.

It comes on without fever, which soon follows, especially if inflammation take place in the intestine affected, and then all the symptoms become greatly aggravated.

Causes. Flatulence—indigestible aliment taken into the stomach—acrid bile—hardened fæces—costiveness—worms—drinking too freely of acids—intermittents improperly cured—sudden check of perspiration—and the application of poisons, such as lead, &c. &c.

Treatment. When the disease evidently arises from wind, which may be known by a rumbling in the bowels, by pressure on the belly, or by the ease experienced from a discharge of it, or by the patient's lying on the belly, a glass of brandy, gin, strong mint-water, or tea made of ginger or calamus, will generally give relief: but it is only in colic from wind that these hot spirituous and carminative substances are to be used, for in all other cases they do great harm, and often destroy life. The flatulent colic is frequently caused by wetting the feet, or otherwise checking the perspiration.—When this is the case, rubbing the legs and arms with warm cloths, and afterwards keeping the feet for some time in warm water, will be the most effectual remedy.

As a spasm is the immediate cause, its resolution is the chief indication of cure; for this purpose, relaxing and antispasmodic medicines, with purges, which, while they solicit the internal discharge, will not greatly increase the morbid irritation, are the most proper means.

Where the pain is fixed and acute, bleeding is adviseable, particularly in full habits, to prevent inflammation. Next, the action of the intestines must be excited by brisk purgatives, such as castor oil, calomel and jalap, or salts, senna and manna, aided by stimulating clysters. If these means prove inefficacious, immediate recourse must be had to the warm bath, in which, the patient should remain as long as he can bear it. Where a bathing vessel cannot be procured, flannels, wrung out of hot water, should be frequently applied over the belly as warm as can be endured. Besides which, tobacco clysters, [*See Materia Medica*] ought to be administered; and when the pain continues obstinate, apply a large blister over the belly.

If the above remedies prove ineffectual, opium and calomel, in large doses, should be employed. To their exceeding utility in obstinate colic, I can subscribe, from numberless successful experiments, made by myself.*

Eminent modern physicians advise, that when all other means are despaired of, the patient should be placed erect on the floor, and a pail of cold water thrown on his feet and legs; this, though apparently a droll remedy, yet certainly deserves to be tried in desperate cases, especially as we are assured from the best authority, that it has often succeeded: it acts, as is said, by occasioning an immediate evacuation of the bowels.

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*How I came in possession of this admirable secret, both justice and gratitude require that I should explain.

In the year 1801, I spent several weeks in Georgetown, Columbia District. While there, I was requested to visit a Mr. James Turner, who had long been indisposed with the ague and fever; but then suffering under a severe attack of the colic, accompanied with most obstinate costiveness. For two or three days the best aperients, as calomel, castor oil, salts, senna and manna, and injections, with the warm bath, and blisters, were used, but without effect. Being much alarmed about his situation, I stated the case to my very excellent friend, the ingenious and learned Doctor *John Weems*, who advised the immediate use of six grains of opium, with twenty of calomel, in a bolus, and one-third of that dose every two hours afterwards, if the first failed to operate. I expressed my fears that so large a dose of opium might do harm. "No sir," replied he, "'tis small doses that do harm; give large doses, large enough to take off the spasms, and you save the patient."

I still retained my repugnance; however, recollecting his great medical attainments, and the desperate case of my patient, I acceded to his advice, and scarcely was the second dose swallowed, before it began to operate like a charm. The spasm was taken off the intestines; copious fœtid evacuations succeeded, and our patient was presently restored.

This is but one of many extraordinary cures performed by Doctor John Weems. The citizens of Georgetown and Washington, will long lament the early fate of this gentleman, of whom for ardent friendship, and medical sagacity, I can truly say—his equal I have *seldom* seen, his superior *never*.

For the vomiting which often occurs in this disease, common garden mint, peppermint, [*See Materia Medica*] or any other spices boiled in spirits, and flannels wrung out of it, and laid hot on the pit of the stomach, are excellent, especially if a little laudanum be added. If acrid bile be thrown up, the saline mixture, or infusion of columbo should be given; and when vomiting is attended with cold extremities, warm applications to the feet, and a blister to the back, often relieves this symptom. It is also frequently removed by a blister on the pit of the stomach.

In violent colics, attended with vomiting, it is always advisable to administer an anodyne injection, and if it be speedily discharged, the clyster should be repeated till the vomiting ceases. A dose of calomel and jalap, castor oil, or infusion of salts, senna and manna is then to be administered every two or three hours, until evacuations are procured.

Regimen. Evacuations being once produced, mucilaginous drinks and light diet should be strictly adhered to, and the bowels kept moderately open by mild purgatives, giving opiates at bed-time if necessary, until the soreness and distension of the belly go off, and no hardened fæces appear in the stool.

Prevention. Those who are at times afflicted with pains in the belly, should keep the feet dry and warm; abstain from flatulent food, and attend carefully to the bowels, to prevent constipation. Those whose occupation subject them to the fumes of lead, should breakfast on fat broth before they begin their work, and frequently interpose oily purgatives.

CHOLERA MORBUS,

OR VOMITING AND PURGING.

Causes. It is generally occasioned by a redundancy and acrimony of the bile—indigestible food, or such as becomes rancid or acid on the stomach—poisons—strong acrid purges or vomits—passions of the mind, or a sudden check of perspiration.

Treatment. Endeavor, as early as possible, to expel the acrimonious matter which affects the alimentary canal, by large and repeated draughts of chicken water, beef tea, barley or rice water, or thin gruel, &c. which should also be given freely in clysters. It is said, upon high authority, that frequent small doses of cold water, not exceeding a gill at a time, will check the purging, cool the ardent heat of the stomach, and abate the thirst. Cold water is the more efficacious as the climate, season, and constitution of the patient are warm, for it cools, blunts acrimony, and restores the tone of the parts. It should be repeated as often as the patient throws up what he drinks, and if fainting, with other symptoms of weakness come on, a little wine should be added to each draught of water. After having cleansed the stomach and intestines, give a tea-spoonful of æther, or thirty or forty drops of laudanum, in mint water or tea, and repeat the dose every hour, or oftener as the frequency of the evacuations or the urgency of the pain may require.

If the laudanum be rejected from the stomach, give a tea-spoonful of paregoric, or opium in pills of half a grain, repeated every half hour at furthest, until the disease be checked; and at the same time, apply mint leaves stewed in spirits, to the pit of the stomach.

In general, this mode of treatment is sufficient; but if the patient be of a plethoric habit, he ought to lose blood immediately: and in case the pain continues violent, be placed in the warm bath; should the bathing vessel not be at hand, peppermint stewed in spirits, or cloths wrung out of hot spirits or decoction of camomile, hops, or lavender, ought to be applied to the stomach and belly, and often renewed.

If acrid bile be the cause of this complaint, the columbo must be given every hour or oftener, in large doses; and, in case of great heat, a small quantity of nitre in the patient's drink will be proper. In warm climates this remedy is considered almost a specific; it soon abates the violent evacuations; and by continuing it a few days a cure is effected. A tea-spoonful of the columbo, finely powdered, in a glass of mint water, or a gill of the infusion may be repeated every hour or two, according to the urgency of the symptoms. In preparing the infusion it is better to add one-fourth ginger or some grateful aromatic, in cases unattended with fever.

When the disease originates from food, either very acid or putrid, besides plentiful dilution with the above drinks, give castor oil, salts, or rhubarb; and if from poisons swallowed, the patient should drink largely of pure sweet oil, melted butter, or mucilaginous drinks, with small portions of salt of tartar.

Regimen. As no disease more suddenly weakens the patient, he should take freely of a light but cordial and nourishing diet, occasionally assisting his appetite, if deficient, with elixir vitriol, tincture of bark, or infusion of columbo. If he cannot sleep well, an opiate at bed-time may be taken, until his strength and spirits return.

DIARRHŒA,

OR LOOSENESS.

Symptoms. A purging without sickness or pain, succeeded by loss of appetite.

Causes. Acid or putrid aliments; obstructed perspiration; acrid bile; drinking bad water; worms; violent passions; or a translation of morbid matter of other diseases to the bowels.

Treatment. If offending matter be lodged in the stomach, give an emetic, and an opiate at bed-time; and on the succeeding day, if the disease is not removed, a dose of rhubarb or castor oil, followed by forty or fifty drops of laudanum at night.

In every case where the diarrhœa continues obstinate, an emetic should be premised. It relieves the stomach from acrimony, checks the increased peristaltic motion downward, and determines to the skin. After the emetic, it is necessary to procure some respite, and with this view opiates may be employed with perfect safety. By lessening or stopping the peristaltic motion, we relax any spasmodic stricture which may prevent the discharge of offending matter, and the gentle laxatives afterwards required, will have a more salutary effect. By thus alternating the opiates and laxatives, we at last succeed in relieving the bowels from the irritation of offending matter, and moderately warm astringents will complete the cure. Opiates may sometimes be given in clysters, and in this way they affect the head in a less degree than when swallowed.

If the disease be in consequence of cold, or the skin be dry, the antimonial mixture, or Dover's powder, exhibited in small doses during the day, and the anodyne sudorific bolus or draught [*See Dispensatory*] repeated at bed-time, with a flannel shirt, will generally effect a cure.

When bile is indicated to be the cause, the columbo in decoction or powder, will be found admirable; and if accompanied with sour and debilitated stomach, the tonic powders or pills, [*See Dispensatory*] with exercise, are the best remedies. Where bad water is in fault, it should instantly be changed or corrected by wine, brandy, or porter; remembering, that in all cases of continued evacuation, laudanum may be given at night after the stomach and bowels have been cleared.

When worms induce this disease, which may be known from the sliminess of the stools, and bad breath, such medicines as are calculated to destroy them must be employed, afterwards a wine-glass full of lime-water, with an equal quantity of new milk, will be proper three times a-day.

In obstinate cases, no medicine is superior to the continued use of the vitriolic solution [*See Dispensatory*] with an opiate at bed-time. The nausea which this medicine produces is very disgusting, but from this circumstance much of its efficacy is derived. Should a common dose fail to nauseate, it should be increased until that symptom is effected.

The jelly of slippery elm, and the blackberry, [*See Materia Medica*] conjoined with a small portion of cinnamon, ginger, calamus, or some aromatic, are also valuable remedies.

According to domestic practice, the efficacy of burnt cork is highly extolled in this troublesome complaint. A friend of mine, of Baltimore, informed me that he administered this medicine to three gentleman who had their bowels very much disordered by a change of water, and that it afforded them immediate relief. He also stated of having given it to a child afflicted with the dysentery, in its chronic form, with the most happy effects. He directs a bottle cork to be burnt to a coal; and after reducing it to a fine powder, it is to be moistened with spirits and then mixed with a little milk and a lump of sugar. Half of this mixture is to be given to an adult, and about one-third, to a child of two or three years of age, repeating the dose, if necessary, in an hour. From the astringent properties of this medicine, it is proper to remark, it should never be employed in affection of the bowels, attended with fever.

Regimen. The diet should consist of arrow root, sago, rice, milk, and the white meats. The drinks may be of the diluting kind, as already enumerated—genuine wine may also be allowed, if it does not turn sour on the stomach. Moderate exercise is peculiarly useful, and nothing facilitates the cure more than flannel next the skin.*

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*This was the "Angel in disguise," that opened the prison doors of this uneasy life, and gave happy freedom to my ever-revered father, Colonel Jesse Ewell, of Virginia. My sister Charlotte celebrated his virtues in an Elegy, the following extracts from which I beg permission of the reader to insert, as a small tribute of gratitude to the best of parents, and but a faint portraiture of his worth.

> "Early he woo'd FAIR VIRTUE for his guide,
> And rarely wandered from her guardian side;

DROPSY.

A collection of water in some part of the body.

Symptoms. In common dropsies the legs usually swell, and a pit remains for some time after pressing the flesh—the appetite abates---the face is bloated---urine little---thirst great, with slow fever, shortness of breath, and lassitude.

Causes. Excessive drinking---poor diet---protracted intermittents---scirrhus tumors of the abdominal viscera, but particularly of the liver, and in fine, whatever may occasion too free a secretion of the serous fluids in the cellular membrane, or any cavity of the body, and at the same time diminish the action of the absorbent vessels.

By him the needy never were denied,
He sooth'd their sorrows, and their wants supplied.
He mourn'd the contests of the neighboring poor,
And opened wide his peace-restoring door;
Where soon his wisdom taught tueir strifes to cease,
Revived their loves, and sent them home in peace,
The slaves whom Heaven to his care consigned,
Ne'er felt the terrors of a slavish mind;
Well fed, warm clad, to moderate labors prest,
They loved their fetters, and their bondage blest.
As FRIEND—as FATHER---who his praise can tell?
Where first begin, or with due raptures swell?
To check our wrong, his frowns were ever light,
And sweet his smiles whene'er we chose the right,
And when at length the awful hour drew nigh,
To waft his spirit to its native sky,
Such in that moment, as in all the past,
"O bless my children, Heaven!" was still his last.
Now 'scaped from earth, with God he dwells above,
And shares with angels in their feasts of love.
Then come, BLEST FAITH, come hasten to my aid,
Lest grief profane disturb his happy shade;
Teach me to bow submissive—and adore,
The unerring counsels of eternal power,
Which gives in love or still in love denies,
And makes e'en "crosses blessings in disguise."
And thou, fond MEMORY, still my sire recall,
Record his VIRTUES, imitate them all—
That joys like his my mortal life may prove,
And peace eternal crown my state above."

Treatment. Like other diseases, the treatment must vary according to circumstances. In every form of dropsy, if there be a hard, full, and quick pulse, blood-letting constitutes one of the principal remedies, and must be repeated once or twice a week, until the action of the arterial system is considerably diminished.

Brisk purges, as calomel and jalap in full doses, are indispensable, and ought always to succeed bleeding, and be given as often as the patient's strength will admit, followed by Dover's powder, or the anodyne sudorific bolus or draught, at bed-time, [*See Dispensatory.*]

The discharge from the intestines is unquestionably of the greatest importance in dropsy; and when obstructed perspiration is a cause, sudorifics are much to be depended upon. However this distinction must be made. If purgatives be accompanied by violent colics, and weakness is the consequence, without producing a considerable discharge, the remedy must be discontinued; but if they operate without pain and inconvenience, the stools watery; and weakness does not follow, whatever the number of evacuations may be, the remedy is good. And if, on the employment of sudorifics, they tend to weaken the system, in general, too much, they should not be persisted in. Another remark to be attended to is, that in every species of dropsy attempted to be cured by internal means, however, they may be relieved by different evacuations, unless the urinary organs continue their evacuating power, the cure will never be lasting.

While feverish symptoms continue, nitre is extremely useful in this disease, in doses of ten grains four or five times a-day, or in such quantities as the stomach may bear, but should not be continued longer than two weeks, if no good effects result from its use. Another valuable medicine for lessening the action of the pulse, and thereby increasing absorption, is the fox-glove, [*See Materia Medica*] which may be given in powder, decoction, or tincture. The latter is the most convenient form, and in doses of twenty or thirty drops in a wine-glass of mint water, may be taken twice or thrice a-day, until the water is removed, or the inflammatory disposition taken off. If this quantity do not induce sickness, or produce any evident good effect, the dose must be gradually increased to forty or sixty drops, or farther.

Cream of tartar, from half an ounce to an ounce, dissolved in a pint or more of water, is a pleasant and useful drink, and this taken early in the morning has frequently succeeded in evacuating the water.

As soon as the action of the pulse becomes lessened, it is necessary to strengthen the system and increase the digestive powers, by the nitric acid or the exhibition of steel alone, or the tonic powders, pills or drops [*See Dispensatory*] thrice a-day during the intervals of purging.

One of the most frequent causes of dropsy is obstructed liver, and when this is suspected, mercurial friction must be resorted to, or a grain or two of calomel, conjoined with a few grains of powdered squills, given night and morning, until ptyalism is produced, and afterwards the nitric acid, and other tonics, constitute the proper remedy. The squill in every form, is a valuable medicine, and succeeds in the greater number of dropsical cases. United with cream of tartar and a small portion of jalap, it is highly useful as combining a diuretic and purgative effect; and with the resin of jalap and gamboge, in pills, its utility is almost unrivalled. The efficacy of this medicine is also highly extolled in dropsies, in doses from five to ten grains, with double the quantity of nitre. It should be observed, however, the squill seldom increases the discharge of urine to any degree, till raised to a nauseating dose.

The juice of leeks, in doses of a table-spoonful twice a-day, is said to have performed surprising cures; at any rate, in this state of the disease the patient can hardly make too free a use of the acrid stimulating vegetables, as garlic, onions, horse radish, &c.

Tight bandages applied in the morning round the belly and limbs, have their good effects in preventing the increase or return of dropsical swelling. Friction, with a flesh brush or flannel every morning from the extremities upwards, is of the greatest service, particularly if the skin be previously moistened with a liniment, composed of equal parts of soap, spirit and vinegar; or with the volatile or camphorated liniment.

Persons recovering from lingering diseases are very subject to anasarcous swellings, particularly if they replenish their weak vessels too fast by full diet.

Scarifications with a knife are much commended when the legs and thighs are turbid with extravasated serum; and, indeed, the water is speedily discharged this way; but the lips of the wound will close in two days, so as to admit of no discharge; and from a defect of heat in the constitution, the part is apt to mortify. Dr. Fothergill, to obviate these difficulties, advises this operation to be performed with the common scarificator used in the cupping, and the instrument to be placed so as to make the wounds transversely. If the skin is thick, the lancet may be so set as to make deeper, and consequently wider incisions; thus a large quantity of water will often drain from the legs or thighs, without risque of inflammation, or deterring the patient from a repetition, if necessary. The punctures must be made in the most depending part of the leg; and their number and repetition depend on the circumstances of each individual case. The application of glasses, either before or after scarifying, is unnecessary; but the instrument must be gently pressed upon the skin, until a surface is formed sufficiently flat to admit the lancets in the scarificator to act equally. In all cases where the skin is so stretched as to threaten inflammation, rupture, or a gangrene, and when the breath is greatly impeded, these openings should be made without delay. Blisters are often employed in the same circumstances instead of scarifications, and are equally useful. An oblong blister may be applied just above the inner ancle, and continued until a thick, white, or purulent discharge is produced. After this period but little water appears, and the sore should be healed. If necessary to be longer continued, blisters may be employed on the outside; and when these have acted sufficiently, we may return to the former surface, which will be now healed. Should a dark or black spot appear, bathe the leg in a strong decoction of oak, and sprinkle the spot with some of the bark, or myrrh powdered, or apply poultices of charcoal and bark, which will soon separate it, and arrest the mortification.

When the difficulty of breathing is considerable, relief will very generally be obtained by expectoration; and for this purpose, pretty large doses of gum ammoniac with the squill, or seneka infusion may be repeated as the occasion requires. The infusion of garlic is often useful, and assafœtida, in the form of pills or tincture, relieves the difficulty of breathing when it is connected, as is often the case, with wind in the stomach occasioning hysteric affections.

Spasms often arise in particular parts, especially about the chest, frequently awaking the patient out of a sound refreshing sleep. In such cases, a grain of opium, with five of camphor, is the most effectual remedy.

When the duplication of the peritoncem is the seat of dropsy, tapping is alone the remedy.

REGIMEN. During the inflammatory disposition, or when there is a preternatural heat on the skin, or much action in the pulse, the diet should be light and easy of digestion. In the other state, when the patient is weak and feeble, it should be of the most nourishing kind, with a liberal use of wine. The patient may, in general, drink in proportion to his inclination. Acid liquors, as lemonade, cider, the imperial drink, or wine, or gin and water may be allowed; and thirst is often prevented by holding nitre in the mouth.

Exercise is of the greatest importance when not carried to fatigue. In the lowest stage of the disease, swinging or riding in a carriage are most proper; but as soon as the patient's strength will admit of it, riding on horseback, will be found most beneficial.

GOUT.

Is often hereditary, but generally indolence and luxury, the hated parents of this disease, which righteous heaven has marked with such severity, that, like the leprosy of Naaman, it is hardly ever curable.*

But though art has not often succeeded to cure the gout, yet it has discovered a variety of means to shorten the fits, and render them much more tolerable.

Symptoms. The gout mostly affects the joints, but the viscera are not exempt from its ravages. It sometimes comes on suddenly, passing from one part of the body to the other, in the twinkling of an eye; but generally is preceded by indigestion, flatulency, loss of appetite, unusual coldness of the feet and legs, with frequent numbness, sense of pricking, and cramp. These symptoms take place several days before the paroxysm comes on, but commonly the day preceding it, the appetite becomes greater than usual. The next morning, the patient is roused from his sleep, by an excruciating pain in great toe, or ball of the foot, resembling the gnawing of a little dog.

Treatment. No matter what part of the body this disease first seizes, the lancet will be required in every case where there is an increased action of the pulse, to take off the inflammatory disposition. The extent to which the blood-letting must be carried, can only be ascertained by the violence of the disease, and the sex and constitution of the patient.

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*An English nobleman, after twenty years riotous living, awoke one morning in the torments of the gout. As he lay writhing with pain, his servant ran up stairs to him with great joy in his countenance: "O! sir, good news! good news! there is a famous gout doctor below, who says he will venture his ears, he can cure your honor in less than a week." "Ah! that is good news indeed, Tom; well run my good boy, and put up his carriage and horses, and treat the doctor like a prince." "O sir, the gentleman has no carrige and horses; I believe he walked a foot!" "Walk a foot! what! cure the gout and walk a foot! go down Tom, go down, and instantly drive the rascal out of the house; set the dogs upon him, do you hear? the lying varlet! why if he could cure the gout he might ride in a richer carriage than his majesty."

In this, as in all inflammatory fevers, the bowels ought to be kept open freely by laxative medicines, as castor oil, sulphur, cream of tartar, rhubarb, senna, jalap, or calomel. Indeed a fit of the gout may be oftentimes entirely, and almost instantaneously, removed by active purging. Even drastic purges need not be dreaded in this disease.

Nitre, with diluting liquors, given in such quantities as to excite a gentle perspiration, are of great utility in the inflammatory stage of the disease. After the action of the pulse is somewhat reduced by evacuations, blisters over the pained parts are greatly to be relied on.

As soon as the inflammatory state of the gout has subsided, stimulants and tonic medicines, as bark and steel, are the best remedies. Laudanum, æther, good French brandy and aromatics, as calamus, ginger, Virginia snake root, and red pepper, [*See Materia Medica*] in the form of teas, are all exceedingly useful in this feeble state of the disease, especially when it affects the stomach or bowels. Besides these internal remedies, friction on the stomach and bowels, or the application of cloths wrung out of hot spirits or water, over the pained parts, and sinapisms to the feet, should be employed whenever the gout attacks the head, lungs, bowels, or stomach.

Gentlemen long in the habits of intimacy with this disease, should remember that it is of immense rudeness, and ready on the slightest provocation to quit the toes and knuckles, and seize on the very stomach and bowels of its best friends. They should therefore be constantly on their guard, and keep always by them a vial of æther or laudanum, or a case of good old French brandy;* the latter of which is admirable for chasing the gout from the stomach.

The white hellebore [*See Materia Medica*] is highly extolled as a remedy in this distressing disease.

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*For lack of this ammunition, the gallant Wayne was cut off long before "his eye was dim, or his natural heat abated." Late in December, 1796, he embarked at Detroit for Presque Isle, but not without his usual supply of brandy, which, however, was all lost, through his servant's carelessness in upsetting his case On the passage he caught cold, which brought on a violent attack of the gout in the stomach; and, for want of his usual remedy, he suffered the most excruciating

Regimen. The diet should be regulated according to the state of the patient. If feverish, and of a plethoric habit, the lightest diet ought to be used. If debilitated and of a relaxed habit, generous diet should be allowed. Exercise, although painful at first, must be freely taken.

Prevention. If the person be plethoric, and has been accustomed to drink freely of wine, and eat heartily, he should gradually diminish the quantity of the aliment; particularly every spring and fall, as the disease is more liable to recur at those seasons than at any other time. But in debilitating habits predisposed to the gout, a stimulating diet is most proper, assisted with the use of the rust of steel, bitters or bark. In every case, costiveness should be avoided; and flannel worn next to the skin is peculiarly proper. Nothing, however, prevents the disease, more than temperance and exercise.*

torture until he reached Presque Isle, where he died early in January, 1797. His body was deposited in the centre of the fort, to show the children of future days the grave of him who so bravely defended their liberties. Filial piety has since removed it to his native state, where it now sleeps with the dust of his fathers.

I am happy to acknowledge, that for this anecdote, I am indebted to the politeness of my worthy friend, Captain Hugh M'Call, of Savannah.

*The story of the wealthy Mr. Palmer, in the reign of George I. though well known to many, is yet so apropos to our subject, that I cannot deny myself a wish to relate it. Young Mr. Palmer received from his father, what the London merchants call a plum, (i. e) a round 100 000*l*. of which he contrived to make such "good use," that by the time he was forty years of age, he was torn to pieces by the gout. His physicians advised him to try the virtues of a sea voyage with the soft balmy air of Montpelier. He set out, but on his passage up the Mediterranean, was captured by an Algerine corsair, who took him to Morrocco, and sold him for a slave. He was bought by a farmer, who carried him into the country, and set him to hard labor, allowing him nothing better than brown bread and dates, and even of that hardly enough to support him. His only drink was water, and his only bed a plank. In a few weeks every gouty symptom disappeared, and he recovered his health, with an uncommon portion of activity

These first of blessings continued with him all the time he was in captivity, (two years,) at the expiration of which, he was ransomed by his friends. On his return to England, he was hardly known by his acquaintances, so great was the change which temperance and exercise has wrought upon him But alas! for the lack of fortitude, he soon relapsed into his old passion for the rich dishes, flowing glasses, and soft couches of epicurism. His system soon became bloated and relaxed: and his ancient foe, the gout, returned, and killed him in a short time.

VENEREAL DISEASE.

The venereal disease is of two species: the one, a local affection of the genital organs, termed *Gonorrhœa*, or *Clap*; and the other, a general or constitutional complaint, termed *Syphilis*, or *Pox*.

The Gonorrhœa,

Of which we shall first treat, is an inflammation of the mucus membrane, lining the urethra, in men, and the vagina, in women; seated in the male about the frænum of the penis, and in the female a small distance up the vagina; but in its progress communicating to all the surrounding parts, and producing a variety of painful sensations.

Symptoms. A discharge of mucus, at first white, but soon turning of a yellow or greenish appearance—an acute or scalding pain in making water, with most *indecent* erections of the penis termed cordee, very painful, and sometimes followed by a discharge of blood. At times the inflammation spreads to the contiguous parts, occasioning stranguary, swelled testicle, swelling in the groins similar to buboes, or a contraction and thickening of the fore-skin, which, when drawn over the head or nut of the yard, is termed *phymosis*, and *paraphymosis* when retracted behind it.

When these symptoms *dance* their attendance to the catastrophe, the clap may be said to *flourish* in its full bloom, and the patient finds himself fairly seated on the stool of repentance.

The appearance of a clap in the female is pretty much the same as in the male, allowing for the difference of the parts. The disease in them is always milder, insomuch, that at times there is no other symptom but the discharge, which is often mistaken for the flour albus. They are, however, more subject to excoriations of the parts than the men, and, indeed, when the inflammation is considerable, it often extends to the urethra, and occasions great pain.

Treatment. In the general treatment of gonorrhœa, rest, together with abstinence from strong food, and every thing of a heating nature, is of the greatest consequence; and this alone, with little assistance from medicine, will complete the cure in a short period.

As the disease is local, topical applications in the form of injections become necessary. The patient should, therefore, without delay, employ one of the injections, [*See Dispensatory*] which in irritable habits, must be a little weakened, and the strength gradually increased as the inflammation abates. Indeed, when the inflammation is very considerable, it is better, at first, to inject with sweet oil or mucilage of sassafras, [*See Materia Medica*] and in such cases the testicles ought to be suspended by a bandage, and the antiphlogistic regimen strictly adhered to, particularly in taking freely of mucilaginous drinks, as flaxseed tea, barley water, or the mucilage of gum-arabic, and obviating costiveness, by small and repeated doses of cream of tartar. Whichsoever of the injections is used, it must be thrown up the urethra six or eight times a-day, immediately after making water, and with a syringe that works easily, that it may not hurt or inflame the parts. It should be observed, if astringent injections of full strength be used in the early period, they often prolong the disease, and occasion swelled testicles, strictures, and enlargement of the prostate glands; but after the inflammatory state is removed, they may be employed with safety, and will be found to facilitate the cure. Frequent bathing the part, and the greatest cleanliness are too important to be neglected; particularly washing under the glands, to prevent the accumulation of the fluids from the odoriferous glands, which produces irritation, inflammation, and often ulcers.

For the *chordee*, which is more severe during the continuance of inflammation, and occurs mostly in the night, while the patient is warm in bed; take, on going to rest, a dose of laudanum, or souse the *guilty* member frequently in a vessel of cold water. Should a hemorrhage supervene, it may be removed by rest, and immersing the part often with cold vinegar and water, or lead water, of the ordinary strength, of which the patient may throw a little up.

According to Professor Chapman, no remedy succeeds better in the cure of gonorrhœa than balsam capivi. He commences with this medicine on the very accession of the disease, regardless of all the appearances of inflammation, such as scalding, chordee, &c. The proper dose is about forty drops, more or less according to circumstances, to be repeated morning, noon, and night. He directs it to be taken in a little wine, or milk, or if it should act on the bowels or be offensive to the stomach in this way, he advises it to be exhibited, agreeably to the following prescription. Take of balsam capivi and sweet spirits of nitre, of each half an ounce, the white of one egg, or powdered arabic and white sugar, each two drachms, mix, and then add laudanum, one drachm, and water three ounces; of this mixture, the dose is a table-spoonful three times a-day. One caution he suggests, should always be enjoined on patients who are desirous of a speedy cure—An entire abstinence from every heating article of food or drink, and a state of complete repose.

He says, contrasted with the ordinary mode of treating it by injection, his plan has several advantages. It is more convenient to the patient—it produces no swelled testicles—it occasions no strictures—it leaves no gleet—it is more prompt and certain in the cure. Of the efficacy of this remedy, coming from such unquestionable authority, there can be no doubt; but candor compels me to acknowledge I have never resorted to it, having uniformly succeeded in the cure of gonorrhœa by injections, as above advised.

When the inflammatory symptoms of gonorrhœa increase to a violent degree, a swelling or inflammation of one or both testicles sometimes supervenes. The same consequence is often produced by astringent injections imprudently exhibited. In such cases the general remedies for allaying inflammation, as blood letting, cooling cathartics, diluent drinks with small portions of nitre dissolved in them, become necessary. Besides which, the testicles must be suspended by a bandage and kept constantly moistened with cloths wrung out of lead water, or cold vinegar and water, often renewed. The swelling of the glands in the groins, and of the spermatic chord itself, require a similar treatment. In these affections, a horizontal posture, and spare diet, are particularly enjoined. In case of much pain with little or no fever, an opiate may be given at bed-time. And if hardness remain after the pain, the patient should have mercurial ointment rubbed on the part, night and morning, and take freely of a strong decoction of sarsaparilla. But if a swelling without hardness follow, one or two vomits, succeeded by tonic medicines, with the use of the cold bath, will generally cure.

In case of *phymosis*, cold applications to the penis, as lead water or cold vinegar and water, and topical bleeding with leeches, constitute the proper remedies. Besides which, soap-suds should be often injected with a syringe between the skin and the gland, to prevent the stagnation of matter, whose extreme acrimony might otherwise produce a mortification of the parts. When these means assisted by opiates fail, an operation becomes necessary; it is simple, and by no means dangerous. A sharp pointed knife, concealed, and defended by a grooved directory, which must be previously introduced between the prepuce and glands, are the only instruments required. The point of the knife should pass through the prepuce at the bottom, and the section be made by drawing it towards the operator. Common dressings are sufficient; but linen or lint should be interposed between the glands and the prepuce, to prevent adhesions.

Paraphimosis is the opposite disease, where the prepuce cannot be drawn over the head of the penis; and in this case, bathing the part frequently in milk and water or soap-suds, and taking some cooling laxative medicine, will generally effect a cure. When the inflammation is considerable and long continued, a mixture of syphilitic infection may be suspected, requiring a mercurial course. Indeed, these affections frequently originate from chancres.

Such are the principal symptoms which attend gonorrhea.

Its consequences, which induce a new state of disease, after the original affection is removed, are no less important.

Gleet.

This is known by a constant discharge of mucus matter, after the inflammatory symptoms have subsided, occasioned by the relaxation of the mucus glands, or stricture in the urethra. A discharge of this kind may also be occasioned by hard drinking, violent exercise, or straining.

A discharge of mucus, if not connected with a venereal taint, even when accompanied with inflammation, which have been excited by high living, or violent exercise, is not infectious.

Treatment. Although this disease often yields with great facility to the common remedies, yet it is sometimes peculiarly distressing and obstinate.

The remedies generally employed are astringent injections; the use of balsam capivi, in doses of thirty or forty drops thrice a-day, and tonics of every kind, particularly cold bathing, both partial and general. In obstinate cases, the uva ursi, [*See Materia Medica.*] as well as the tincture of cantharides, have often succeeded. None of the remedies should be continued longer than eight or ten days, if they produce no salutary effects. They often in this time remove the complaint which recurs on their being discontinued, so that they should be employed long after the discharge has ceased. The tincture of cantharides may be given conjointly with balsam capivi, or alone in common drink. This remedy must be cautiously employed, beginning with very small doses, about fifteen drops of the tincture, which may be gradually increased daily, as in the irritable state of these organs even a common dose may excite dangerous inflammation. The application of a blister to the sacrum, or blistering the urethra, in its course, has sometimes succeeded. Upon high authority an obstinate gleet was cured by the injection of punch, a remedy suggested in a convivial moment; at another time by green tea; and again by a decoction of red oak bark. An astringent injection of considerable efficacy in obstinate gleets, is prepared by dissolving twenty or thirty grains of alum in a half pint of water, which should be injected up the urethra, twice or thrice a-day.

When an ulcer in the urethra is the cause, which may be suspected, if on pressing the penis slightly erected, between the finger and thumb, one part is found more sensible to the touch than another, the best remedy which has come under my notice in practice, is an injection composed of one or two grains of corrosive sublimate in a half pint of water, or made of sufficient strength to excite some degree of inflammation in the part affected. If a stricture be the cause, the introduction of a bougie is the only remedy. While the use of a bougie is continued, the discharge usually proceeds, but after three weeks or a month it should be omitted. If the running stops, the cure is usually effectual; if it continues, the remedy should not be repeated.

In women, gleets are equally obstinate, but they generally pass under the appellation of *fluor albus*, or *whites*.

Seminal Weakness,

Is another consequence of clap, when there has been frequent returns of it, and is known by an involuntary discharge of the semen. At the beginning of the disease there is a great inclination to erections, and the emission of the semen is attended with pleasure; but gradually the penis becomes lame, the testicles hang lower than usual, and unless they are otherwise suspended, become almost a burden to the possessor.

Although *veterans* in the wars of Venus, are most liable to be complimented with this kind of gleet, yet it may originate from other causes, as self-pollution, a sudden lift or strain, hot clysters, straining to stool, or the imprudent use of strong diuretics. Let the cause, however, be what it will, there is no drain which steals away the quintessence of life and strength more rapidly.

Treatment. If the emission takes place on the slightest irritation, as heat, wine, &c. and is attended with some degree of spasm, it is a sign the patient is in a very *rampant* state, and can hardly get him a wife too soon. But if it oozes away insensibly, cold bathing, and tonic medicines, as bark, steel, or balsam capivi in the usual doses, with a generous diet, are the best remedies. Costiveness should be carefully avoided.

Obstruction of Urine,

Is another formidable symptom, which sometimes succeeds gonorrhœa. It is produced by certain changes of the passage, from tumors seated high up in the urethra, or contraction of the urinary canal.

Treatment. When this affection arises from tumors, a cure may be attempted, by the use of the mercurial pills, [*See Dispensatory*] night and morning, and a decoction of sarsaparilla, or mezereon; but it is often incurable.

When spasmodic constriction of the passage is the cause, it will be removed by the warm bath or fomentations. The penis may also be rubbed with camphorated oil, [*See Dispensatory,*] or equal parts of æther and laudanum. If this fail to take off the spams, bleed, and give laudanum in large doses.

POX,

Is the venereal disease in its confirmed state, manifested by chancres, buboes, or warts about the genitals. To these succeed ulcer in the throat, nose, and tongue; blotches on various parts of the body, with nocturnal pains, especially in the shin-bones and shoulders.

The system is now filled with the horrid poison, which, unless mercifully arrested, will soon ulcerate the eyes, consume the nose, contract the body, and convert the loveliest form into such a mass of corruption, such a dunghill of stench, such a picture of ghastliness, as is sufficient to strike the guilty person with terror.

A pallid youth, beneath a shade,
A melancholy scene displayed;
His mangled face, and loathsome stains,
Proclaimed the poison in his veins.

He raised his eyes, he smote his breast,
He wept aloud, and thus addressed:

"Forbear the harlot's false embrace,
Though lewdness wear an angel's face;
Be wise by my experience taught,
I die, alas! for want of thought." COTTON.

ELEGY.

"Weep o'er the miseries of a wretched maid,
Who sacrific'd to man her health and fame;
Whose love, and truth, and trust, were all repaid,
By want and wo, disease and endless shame.

Curse not the poor lost wretch, who ev'ry ill
That proud unfeeling man can heap, sustains;
Sure she enough is cursed, o'er whom his will,
Inflam'd by brutal passion, boundless reigns.

Spurn not my fainting body from your door,
Here let me rest my weary weeping head;
No greater mercy would my wants implore;
My sorrows soon shall lay me with the dead.

Who now beholds, but loathes my faded face,
So wan and sallow, chang'd with sin and care?
Or who can any former beauty trace,
In eyes so sunk with famine and despair?

That I was virtuous once and beauteous too,
And free from envious tongues my spotless fame:
These but torment, these but my tears renew,
These aggravate my present guilt and shame.

Where are my virgin honors, virgin charms?
Oh! whither fled the pride I once maintain'd?
Or where the youths that woo'd me to their arms?
Or where the triumphs, which my beauty gain'd?

Ah! say, insidious Demon! Monster! where?
What glory hast thou gain'd by my defeat?
Behold the miseries I am doom'd to bear,
Such as have brought me to my winding sheet."

TREATMENT. Happily for mankind, the Governor of the world, is "*a father who pitieth his children*," and afflicts them not to kill, but to cure. In mercy he has appointed a medicine for this dreadful malady. A medicine, which, when taken in sufficient quantity, quickly flies to all parts of the system, attacks the disease at every post, drives it from gland to gland, and with a fidelity and courage truly admirable, never gives it rest until it has completely expelled it from the body, and restored the patient to former health and vigor. This wonderful medicine is MERCURY, which requires only to be so managed as to obtain full possession of the system; not exceeding it by salivation, nor falling short of it by untimely purging. To hit this desirable point, let a table-spoonful of mercurial solution or one of the mercurial pills [*See Dispensatory*] be given night and morning, until the system is fully charged with the medicine, which may be known by a slight soreness of the mouth and gums, and fœtid breath. This fortunate state of things, carefully supported a few weeks, will remove the disease.

If the mercury affects the bowels, lessen the dose, or give it at longer intervals, or use the mercurial ointment; and if there is an increased secretion of the salivary glands, we should omit the mercury for a few days, and take a tea-spoonful of flour of sulphur, in a glass of milk or flaxseed tea, night and morning.

In this way the disease may generally be cured in a short time. It will always be prudent to continue the mercury in small doses for ten or twelve days after the total disappearance of all the symptoms.

There are cases, however, where mercury will not answer, as in scrophulous habits, and when the blood is vitiated. In these, the nitric acid should be preferred, and from one to two drachms of it, diluted, [*See Dispensatory*] may be taken in the day. This medicine seems especially adapted to cases where the habit of body is much debilitated, from the long continuance of the disease, or where it has acquired great irritability from an incautious use of mercury. It is also a sovereign cure of spongy gums, eruptions, ulcers, nocturnal pains, and all the train of consequences, usually attendant on this disease, when of long standing and imperfectly cured.

In the treatment, therefore, of venereal patients, too much attention cannot be paid to mark the peculiarities of habit; and we should always remember, that, when unfavorable appearances supervene from the use of mercury, other medicines, as the nitric acid, or tar water, [*See Dispensatory*] or decoctions of prickly ash, mezereon, lobelia, sarsaparilla, sumach, or poke bounce. [*See Materia Medica.*]

In this disease, there are certain symptoms which require local treatment. Thus, a chancre, which is a small red pimple, terminating in ulcer, with hard edges, and generally situated on some part of the prepuce, or the fore-skin of the penis, is best removed by the application of caustic; or, if recent, washing with spirits or brandy, a solution of alkali, [*See Dispensatory*] and applying dry lint to the sore, with cleanliness, will generally prove sufficient.

When a bubo supervenes, which is known by pain and swelling in the groin, every attempt should be made to disperse it by rubbing in mercurial ointment on the inside of the thigh or calf of the leg; and the application of cloths, wrung out of lead water, or ice, if it can be procured, to the swelling, renewed as often as they become warm.

Besides which, the patient should be kept still, the bowels open, and the pain alleviated by the use of opiates at bed-time.

When a tendency to suppuration is discovered, instead of the former plan, warm poultices of flaxseed, milk and bread, or mush and fat, must be applied and renewed three or four times a-day, until the tumor breaks. After which, one or two poultices may be continued, to accelerate the discharge of matter, for a day or two, when the sore must be kept clean with soap-suds, and dressed night and morning with basilicon, spread on lint, until the matter is mostly discharged. The sore should then be dressed with lint dipt in a solution of alkali, [*See Dispensatory*] once or twice in twenty-four hours, as may be indicated by the discharge of matter; and lastly, when there is no appearance of proud flesh, it may be healed with Turner's cerate, or any healing ointment.

Warts are a frequent affection of the penis, and sometimes remain after the venereal virus is expelled. In which case they may be removed by ligatures, or the application of caustic.

Regimen. There is hardly any thing of more importance in the cure of this disease, than a proper regimen. Inattention to this, not only procrastinates the cure, but often endangers the patient's life. In full habits, the diet should always be light and cooling. Exercise should never be carried to excess, and the patient should wear flannel on using any preparation of mercury. Cleanliness is of too much importance ever to be neglected. As soon as the disease makes its appearance, the infected part should be frequently washed in milk and water, or soap-suds; and if from a neglect of cleanliness, venereal ulcers appear, the sores must be well cleansed, and dressed with dry lint night and morning. In obstinate cases the lint should be dipt in the solution of alkali.

When the patient is in delicate health, or much reduced, a nourishing diet, with wine, bark, and other tonic medicines, are proper, with pure country air.

Prevention. After a suspicious connexion, it becomes a prudent man to discharge his urine, as soon as possible, and wash well his *polluted* member, by drawing forward the foreskin, and closing the end with his finger, that it may be distended, and retain for a few seconds the urine. The glands and penis should then be well washed with strong soap-suds or grog.

In women, besides cleansing the external parts, some portion of the wash should be injected up the vagina, by means of a female syringe.

SCURVY.

Symptoms. An unusually weakened state of the body—pale and bloated countenance—the breathing affected on the slightest exertion—the gums soft, swollen, and inclined to bleed on being rubbed, and sometimes putrid ulcers are formed—the teeth become loose—the breath fœtid—and the urine high coloured. The heart is subject to palpitation—the lower extremities to dropsical swellings—the body to pains of a pleuritic or rheumatic kind—besides which, blotches and ulcers break out in different parts of the skin, and often terminate in mortification.

Causes. Cold moist air—vitiated or scanty diet—an indolent life, with luxurious indulgencies—corrupted water or provisons—and whatever may weaken the body, or vitiate the humors.

Treatment. Raw and fresh vegetables of every description, particularly those of an acid kind; and fruits, such as lemons, limes, oranges, sorrel, &c. [*See Materia Medica*] furnish the most effectual remedies. But as these are not at all times to be obtained, common vinegar, or nitrous vinegar, used freely, will completely answer the end. The nitrous vinegar is prepared by dissolving three or four ounces of nitre or salt petre, in one quart of good vinegar; and of this solution, from one to two spoonfuls may be taken three or four times a-day, according to the advanced stage of the disease, and as frequently, some of it may be used in bathing the limbs, where they are either stiffened, swelled, blotched, or ulcerated. Soda-water or nitric acid, [*See Dispensatory*] will be found a useful auxiliary, when the disease is inveterate.

The belly most frequently will be kept open by this medicine, and when it is not, the exhibition of cream of tartar, or tamarinds, will be highly beneficial. When the gums are enlarged, ulcerated and fœtid, the mouth should be frequently washed with a decoction of red oak bark, in which, a little alum is dissolved, and the gums rubbed with a powder composed of equal parts of finely pulverised charcoal and bark, and with which, the scorbutic ulcers may be dressed morning and night. These ulcers may be known by their soft and spongy edges.

REGIMEN. So uncommonly salutary are vegetables in this disease, that whenever they can be had fresh, they should, with ripe fruits and milk, constitute the chief part of diet for scorbutic patients. When these articles cannot be procured, a mild nourishing diet, with wine, cider, and porter, is most proper. As nothing is of more importance to the scorbutic, than breathing pure fresh air, it should at all times be well supplied. Seamen, therefore, affected with it, ought constantly to keep on deck in fair weather.

ERUPTIONS OF THE SKIN.

THERE subsists so intimate a relation between the internal and external parts of our body, that no disorder scarcely takes place within, that does not show itself ultimately on the surface.

Diseases of the skin are therefore very numerous, and as they most commonly arise from a constitutional cause, should be treated by general remedies.

Local applications, particularly *quack* remedies, which are composed of mineral poisons, by repelling the vitiated humors to the brain, lungs, or bowels, have often produced fatal consequences.

Persons of relaxed habits, especially females, are subject to an eruption, attended with redness and soreness of the skin, forming large spots on the face and neck. This is certainly the mark of a constitutional debility, and can only be removed by tonics, as the bark, bitters, solution of arsenic, nitric acid, &c., and exercise. Attention should also be paid to a frequent change of linen, and the skin occasionally dusted with starch.

Cutaneous eruptions oftentimes arise from a foulness of the stomach, in which case, occasional vomiting and purging are found to be highly useful.

There are eruptions in the face of persons of apparent health, called *grog blossoms*, which are the consequence of an inflamed liver, from a too frequent use of wine and spirits, and high living.

An attempt to remove these pimples by external means, would not only be fruitless, but highly dangerous. Their cure can only be effected by gradually correcting the habit of intemperance, both in eating and drinking.

The primary affection must be first relieved. This is to be done by taking, every night, from half a grain to one grain of opium, combined with two grains of calomel. After using this medicine for some time, or until the mouth is affected by salivation, the nitric acid diluted, [*See Dispensatory*] in its usual doses, will complete the cure.

Scaly affections of the skin, or clusters of small pimples over the body, usually occur in some habits, spring and fall, which will generally yield to sassafras tea, or cream of tartar and sulphur, in doses of a tea-spoonful, night and morning.—Should this fail, the decoction of sarsaparilla, and one of the mercurial pills, night and morning, for a week or two, and afterwards, the solution of arsenic will always succeed.

The *prickly heat*, is an eruption which is sometimes very troublesome, but commonly disappears on keeping moderately cool, and avoiding warm drinks. When this is not sufficient, and the itching is severe, the carthartic mixture taken two or three times a week, and the external applications of elixir vitriol diluted in water, or the itch lotion, [*See Dispensatory*] with the addition of a little more water, will prove a good remedy.

The *nettle rash*, so called, from its resemblance to eruptions, made by the stinging of nettles, is sometimes attended with intolerable itching. When many of the eruptions run together, the part seems swelled, forming tumors, such as appear after being struck with the lash of a whip, and betwixt them, the skin is inflamed and very red. The elevations appear suddenly, but seldom continue long, and are apt to disappear from one part of the body, and appear again in another.

The itching is the greatest inconvenience, as it sometimes prevents the patient from sleeping, but the disease is not dangerous.

With respect to the cure, observing a cooling regimen and a laxative state of the bowels, is generally sufficient; but if fever supervenes, it will be proper to bleed and give the antimonial solution in small doses, to determine the fluids to the surface. When the disease is of a chronic nature, and often returns, twenty drops of elixir vitriol, taken thrice a-day, in a cup of camomile or centuary tea, or infusion of columbo, should be directed.

To allay the itching, a solution of borax, in vinegar, an ounce of the former, to half a pint of the latter, affords a good wash.

ITCH.

The itch consists of small watery pimples of a contagious nature, which first appear between the fingers, and on the wrists, but in process of time, spreading over the whole body, except the face, attended with a great degree of itchiness, especially after being heated by exercise, or when warm in bed.

In the cure of this disease, sulphur used internally and externally, is considered as a certain specific. A tea-spoonful of the flour of sulphur, taken in milk, or spirit and water. thrice a-day, and some of it rubbed on the inside of the arms and legs at bed-time, either dry, or in the form of unction, will soon effect a cure. Where the sulphur is disliked, the mercurial ointment may be rubbed in every night, about the size of a nutmeg, until the eruption entirely disappears. The itch lotion [*See Dispensatory*] will also be found an effectual remedy in this complaint, by washing the parts affected with it two or three times a-day. The internal exhibition of sulphur alone, or combined with cream of tartar, should always precede or accompany the external applications. Dock root, tobacco, and Virginia snake root. [*See Materia Medica,*] have sometimes cured when the above remedies failed.

TETTER, OR RING-WORM,

Is an eruption that attacks various parts of the skin, in a circle with an inflamed basis, which gradually spreads, forming an extensive excoriation, sometimes moist, at other times dry; and is attended with smarting and itching, succeeded by scurfy scales.

Treatment. If the habit of body be not faulty, external applications alone, are often sufficient to remove this affection. The saturated solution of borax, with vinegar or lemon juice, one drachm to an ounce of the acid, is an excellent remedy, without producing the least pain on its application. The itch lotion, when prepared with double its strength, is also equally good. Covering the eruption daily with ink, or the juice of black walnut, [*See Materia Medica,*] has often effected a cure.

Where the disease is inveterate, internal medicines must be exhibited and continued for some time, such as lime-water, flour of sulphur, the mercurial pills, or which is preferable to all of them in obstinate cases, the solution of arsenic. [*See Dispensatory.*]

TINEA, OR SCALD HEAD.

Symptoms. This disease consists of little ulcers at the roots of the hair, which discharge a humor that dries into a white scab, or thick scales, and has an offensive smell. It is not only a very troublesome complaint, but contagious, and when united with a scrofulous constitution, found extremely difficult to be cured.

TREATMENT. When it is merely a complaint of the skin, it may be successfully treated with topical applications. In the beginning of the affection, washing the sores well, night and morning, with strong soap-suds, or a decoction of tobacco, or by applying an ointment, made of jimson-weed, or pride of China, [*See Materia Medica,*] will frequently effect a cure. But if the disorder prove obstinate, the head ought to be shaved, and after being well washed with soap-suds, covered with tar and suet, spread on a bladder. My very ingenious friend, Dr. Chapman, has assured me, when every other application failed in removing this disease, he always succeeded, by having the affected parts washed with the following lotion, twice a-day:—Take liver of sulphur, three drachms—Spanish soap, one drachm—lime water, eight ounces—rectified spirits of wine, two drachms—mix.

But in cases where topical applications are resisted, medicine should be given internally, as lime water, flour of sulphur, or calomel, according to circumstances; and to hasten the cure, the course of the fluids may, in the mean time, be in part diverted from the head, by blisters or sinapisms.

SCROFULA, OR KING'S EVIL.

THIS disease is most frequent among the children of the poor, and negroes, who are ill-fed, ill-lodged and ill-clothed; it is also hereditary, but never contagious. It most commonly occurs in children from the third to the seventh year; frequently, however, it discovers itself at a later period in habits peculiarly disposed to it.

SYMPTOMS. It is known by indolent hard tumors of the lymphatic gland, particularly those of the neck, behind the ears, or under the chin. The upper lip, and division of the nostrils are swelled, with a smooth skin, and hard belly. In the progress of the disease, these tumors degenerate into ulcers of bad digestion; the discharge of which consists of a white curdled matter, resembling somewhat the coagulum of milk; and previous to their breaking, they acquire a sort of purple redness, and a softness to the touch.

Treatment. As soon as the tumors are first discovered, endeavor to disperse them by sea bathing, or bathing in salt and water, one pound to three gallons of water, or cold water alone, or by frequent application of lead water. Warm fomentations and poultices of every kind do harm, as they seem only to hurry on a suppuration, which, if possible, should be prevented. A draught of sea water every morning is a useful drink. Peruvian bark and steel, used alternately every two weeks, or the nitric acid, will be of infinite service by giving tone to the system. The remedy, however, most to be depended upon in this disease, is the muriate of lime, given in doses of ten to eighty drops, gradually increased, three or four times a-day, diluted with water or tea. When a suppuration takes place, the solution of arsenic should be given twice or thrice a-day. The best application to scrofulous ulcers, is a powder composed of one pound of finely powdered bark, and one ounce of white lead in fine powder, mixed well together, or a fine powder of calamine-stone alone, and the ulcers covered with it daily, keeping it on by brown paper and a bandage. Where these are not to be obtained, the constant application of linen rags, moistened with a solution of one ounce of sugar of lead, in a pint of water, may answer every purpose.

With respect to the diet, it should be nourishing and easily digestible, avoiding all viscid food. Moderate exercise, in a dry warm air, is exceedingly beneficial.

JAUNDICE.

Symptoms. Yellowness of the skin, but chiefly of the eyes, the urine also yellow—inactivity—anxiety and uneasiness at the pit of the stomach—itchiness of the skin.

Causes. Whatever obstructs the passage of the bile, through its natural channel.

TREATMENT. The indications of cure are, to remove the obstructions, which, as it originates from different causes, will require different modes of treatment:

As viscid bile is the most common cause of this complaint, in full habits, and where there are any feverish symptoms, begin the cure with bleeding, afterwards give an emetic, and then a day after, a dose of calomel and jalap, which should be often repeated if necessary. Common soap in large quantities has been exhibited with much success in this case, but as this is disagreeable to take, the salt of tartar, which has the same advantage, or soda, may be taken in doses of twenty or thirty grains, three or four times a-day, dissolved in the infusion of columbo.

If there be any acute pain in the region of the liver, with a quickness of the pulse, bleed more freely, give one of the mercurial pills, [*See Dispensatory*] night and morning, until a ptyalism is produced, use the warm bath, and apply a blister over the pained part. In cases of much pain, three or four table-spoonfuls of olive oil should be swallowed, and if it do not succeed in quieting the pain, one or two tea-spoonfuls of æther, or thirty drops of laudanum must be given. The warm bath, or bags of hot salt applied to the right side, are likewise beneficial. After the obstruction is removed, the columbo or nitric acid, tonic powders or pills, or dogwood, or cherry-tree bark, [*See Materia Medica.*] with porter and wine, are necessary to restore the tone of the system.

REGIMEN. The diet ought to be regulated according to the constitution of the patient. In plethoric or feverish habits, the diet should be low, and in cases of excessive debility it should be of the most nourishing kind. Vegetables, by creating flatulency and acidity, are to be avoided. Mucilaginous drinks are peculiarly proper; and in many instances, sucking a new laid egg every morning, on an empty stomach, has succeeded in curing this disease, when all other means failed.

WHITE SWELLING,

Is distinguished by an acute pain, without any external inflammation, of a joint, attended with a gradual increase of its size. Though all the joints are occasionally subject to it, yet its most usual seat is in the knee.

White swellings are generally of a scrofulous nature, but sometimes they are produced by rheumatic affections, and sometimes follow strains that have been neglected, or badly treated.

TREATMENT. As soon as an affection of this kind is discovered, the patient should remain in bed, and the limb kept perfectly at rest, without which, remedies cannot produce any good effect.

The great object is to prevent the formation of matter, by the immediate application of leeches, or scarifications to the part affected, and by which, eight or ten ounces of blood may be taken away, every other day, or oftener, according to circumstances. The whole joint should then be kept continually wet and cold with the solution of crude sal-ammoniac, [*See Dispensatory*] by means of four or five folds of linen. After the local affection is somewhat abated, frictions with the volatile liniment, or a mixture of soft soap and spirits of camphor, to which may be added some tincture of cantharides, will have a good effect. With one or other of these liniments, the joint is to be rubbed well twice a-day, and afterwards covered with a piece of flannel that has been soaked in the same. If this should not produce good effects, the part must be rubbed night and morning with mercurial ointment, in the quantity of two drachms at a time, and continued until the mouth is gently affected. The cure may then be completed by small blisters on each side of the joint, which should be kept running for a length of time.

If the disease in spite of these remedies continue to advance, emollient poultices must be applied often, until various abscesses appear, and these should be opened as soon as they seem to point, afterwards to be treated as ulcers.

In cases where the white swelling is evidently scrofulous, tonic medicines, as bark, steel, &c. and a nourishing diet, to correct the constitutional affection, with stimulating applications to the joint, form the best remedies.

SEA-SICKNESS.

Symptoms. A most unpleasant giddiness, with great nausea and vomiting, occasioned by the motion of the vessel. The duration of this complaint is very uncertain. Generally, it lasts but a day or two, but in some cases it will continue a whole voyage.

Treatment. Though time, perhaps, is the only cure, yet it will be greatly alleviated by keeping the bowels open. A tea-spoonful of æther, in a glass of water, relieves the convulsive affection of the stomach. High-seasoned food, and acidulated drinks, are peculiarly proper. But nothing will be found more serviceable than exercise, cheerfulness, and fresh air. Persons should, therefore, never go below, but romp on the decks, cut capers in the shrouds, and divert their minds and move their bodies as much as possible.

INTOXICATION.

Symptoms. Like every other kind of frenzy, it comes on with a burning redness of the cheeks—a swelling of the jugular veins, and fiery wildness of the eyes. The tongue is considerably affected, but very differently in different stages of the disease. At first, only glib and voluble—then *loud*, and *louder* still—at length *noisy* and excessively disagreeable. The patient now is quite on his top-ropes, and nothing goes down with him, but the most ranting songs, roaring laughs, ripping oaths, and bluntest contradictions, accompanied with loud thumping of the fist on the table, especially if politics be the topic of conversation. There is no complaint that affects patients so differently—some it makes so ridiculously loving, as to hug and kiss one another—others it kindles into such rage and fury, that they will frequently throw the bottles and glasses at the heads of their best friends. And, indeed, so wonderful is its influence, that it is no uncommon thing, with it, to inspire cowards with courage—to teach truth to liars, and to make persons naturally reserved, loquacious, and even boisterous.

The memory now partakes of the general infirmity, being hardly able to connect the parts of a story begun. The tongue at length, as if about to lose its powers, begins to trip—then to stammer—and at last the utterance dies away generally in some idle half-finished threat or oath. Hiccups now ensue, with a silly grin of the mouth, which continues half open, from the falling of the lower jaw. The face puts on an air of great stupidity—the eyes turn heavy and sleepy, and the patient begins to nod, with his head bending forward, until, becoming too heavy, he sinks under the table, and not unfrequently, after a filthy vomiting, falls asleep among the dogs and cats.

TREATMENT. In a fit of drunkenness, the patient should instantly be placed in an airy situation, the head and shoulders kept erect, and the neck-cloth and collar of the shirt unbound, and copiously bled, if his situation seems alarming. The next step is to provoke vomiting, by the most expeditious means, such as tickling the throat with a feather or the finger. Cold applications to the head, as cloths wrung out of cold water, or vinegar and water, often renewed, will have the happiest effect; so will plunging the body into cold water, for many instances have occurred of persons having fallen overboard in a drunken fit, and have been picked up sober.

Therefore, it will be found an admirable mode of sobering those vagabonds, who, as a nuisance, infest the streets of every city, to take them to the nearest pump, and there deluge them with cold water. This will not only bring them to their senses, but send them off, under that sense of shame, which ever follows the commission of a crime so truly ignominious.

TO RECOVER PERSONS
APPARENTLY DROWNED.

As soon as the body is taken out of the water, it should instantly be rubbed dry, and wrapped in warm blankets, unless the cooling process should be first necessary, in consequence of the patient being in a half frozen state. For, in that case, the body ought to be rubbed with snow, or flannels wrung out of cold water or vinegar, before any degree of artificial warmth is applied. After which, the patient is to be placed on a bed or mattress, with the head elevated, and air is then instantly to be blown into the lungs, by inserting the pipe of a pair of bellows into one nostril, or for want of that article, a tobacco pipe, a quill, or even a card folded in the form of a tube, while the mouth and opposite nostril are closed by an assistant, or covered with some wet paper. By thus forcing air into the lungs, and alternately expelling it by pressing the chest, respiration may happily be restored. Volatile salts, or vinegar, should also frequently be applied to the nostrils.

Next the intestines are to be stimulated by injections of warm spirits and water, or mulled wine. It will be more effectual still, if some warm spirits and water be introduced immediately into the stomach, by means of a syringe and a long flexible tube. While using the internal stimulants, a bladder of warm water should be applied to the region of the stomach, and the legs and arms briskly rubbed with a warm hand, or with flannel, extending the friction gradually to the thighs, belly, and chest.

At that critical period, when sneezing, slight twitchings, or gasping, mark the first dawn of returning life, it will be prudent to moderate the stimulating powers. When respiration and the power of swallowing are restored, the patient should be kept moderately warm, and gentle perspiration encouraged by warm drinks.

Should feverish symptoms ensue, moderate bleeding, together with mild laxatives and cooling regimen, will complete the cure.

TO RECOVER PERSONS

Apparently Killed by Lightning, or Noxious Vapours.

Treatment. Instantly throw cold water with some force, in large quantities, on the face and head, which should be often repeated for some time, and if convenient, the whole body may be plunged into cold water, and afterwards wiped dry, and warmth gradually applied. If the body and the extremities feel cold, instead of the application of cold water, the warm bath, about the temperature of the blood, should be prepared as soon as possible, and the patient immersed in it for twenty or thirty minutes, using frictions at the same time with the hand. As soon as the patient is taken out of the bath, his skin must be wiped dry, and wrapped up in warm flannel, and gentle stimulants employed to produce a reaction.

The vital principle is not unfrequently suspended by the deletereous fumes arising from fermenting liquors, from charcoal, coke, &c., from combustion, from metals in a state of fusion, particularly arsenic and mercury; as also, very often, from respiring the foul air of wells, privies, caverns, and mines. In such cases, the person should be freely exposed to pure and cool air, and supported, at the same time, in a leaning posture. Volatile salts, or other stimulating substances, are then to be applied to the nose, and cold water made use of, as above directed. In places where a lighted candle will not burn, animal life cannot be supported; and, therefore, in all cases, where wells, cist-pools, or deep vaults, are to be opened, a large candle, lighted, ought to be let down very slowly to the bottom, before any person attempts to descend.

If the candle is extinguished, means must be adopted to remove the noxious air, before any one descends. To effect this, the following modes will answer. 1st. Let the leather-pipe of an engine be introduced to the bottom of the well, if empty, or the surface of the water, and affix a blacksmith's bellows to the other end, when, by well working this, the foul air may be expelled. 2dly. Carbonic acid gas may be bailed out with a bucket made of coarse cloth like a bag, with a round piece of board, nearly the diameter of the well at the bottom; let the bucket, thus made, down upon the water, so that the bottom may rest upon it, and let the bag fall upon the bottom; then draw it up, when it will be filled with foul air, which may be brought up to the surface, and emptied by turning out and shaking the bag. 3dly. Let down about a bushel of quick lime, dipping it into the water occasionally, to slack it; or, if there be no water in the well, throw down some for the purpose. 4thly. Pour down a large quantity of boiling water repeatedly into the well.

When by these means the circulation of the blood is increased, and the extremities become warm, bleeding will be proper, and must be often repeated, if the patient have fever, or complain of pain. Besides which, evacuations must be procured by purgative medicines and clysters, and the antiphlogistic plan in every respect strictly pursued, until the febrile symptoms abate. After which, tonic medicines, with wine, in case of debility, are of infinite service.

POISON.

Treatment. The cure of poisons swallowed, whether vegetable or mineral, requires either an immediate evacuation, or a counteraction of their effects. Therefore, as soon as possible, throw in an emetic, quick in its operation, as blue or white vitriol in a dose, from five to twenty grains, repeated in fifteen minutes, if necessary, and assisted by copious draughts of warm water.

To remove the stupefaction which generally ensues after an imprudent dose of opium, acids of the vegetable class, as lime juice, or vinegar diluted with water, ought to be exhibited freely. But if the patient lay in a deadly stupor, with cold extremities, the warm stimulating plan must be first adopted. Sinapisms or blisters ought instantly to be applied to the extremities; or, as a more effectual remedy to produce reaction in the system, the legs and arms should be whipped well with rods, and the soles of the feet seared with a red hot iron.

It appears, from incontestible experiments, that the white of an egg beat up with cold water is the best antidote against corrosive sublimate and the other mercurial preparations. The whites of twelve or fifteen eggs, are directed to be beat up and mixed with two pints of cold water, and a glass full taken every two or three minutes, so as to favor vomiting. In defect of eggs, milk and mucilaginous drinks may be used with great success. The same method may be pursued in case of arsenic or any metalic salt has been taken. A drink composed of equal parts of lime water, and sugar and water, should also be given when arsenic has been swallowed. Unless these remedies are quickly resorted to, death will inevitably take place. Should fever supervene, the antiphlogistic treatment must be pursued. The application of tobacco will assist the operation of an emetic. [*See Materia Medica.*] For the poisonous effects of lead. *See Vine.*

BITES OF MUSQUITOES.

Musquito bites often degenerate into painful acrid ulcers, particularly on the legs, in consequence of scratching them. It is, therefore, proper, where these insects are troublesome, to wear loose linen buskins to guard the legs in the evening; and when this has been neglected, apply oil, vinegar, lime juice, or camphorated spirits, to the part, to allay the itching and tingling occasioned by their bites.

BITES OF VENOMOUS ANIMALS.

TREATMENT. The bites of all venomous animals are cured by the same means, which are very simple, if the remedies were always at hand. The caustic volatile alkali, or eau de luce, is a certain antidote against the bites or stings of the most venomous serpents or spiders. Lint wetted with either of these should instantly be applied to the injured part, and renewed as it becomes dry. A tea-spoonful of the same medicine must also be given to the patient in a little water, every hour, or oftener, as may be indicated by the symptoms.

Lunar caustic possesses the same admirable virtue, and should always be employed, when the other medicines are not at hand. The best mode of using it, is to dissolve five or six grains of the caustic in two or three ounces of water, and keep the affected parts moistened with it, as above directed. Some of the same ought also to be given internally, only in a more diluted state. When these remedies cannot be procured, a cataplasm, made of quick-lime and soap, should be applied to the bitten part, and as much Cayenne, or red pepper, mixed in spirits, swallowed every hour or two, as the stomach can possibly bear.

The juice of plantain and hoar-hound, in doses of a table-spoonful every hour or two, is considered a good remedy against the bites of venomous serpents, as is also squirrel ear. [*See Materia Medica.*]

As soon as a person is bitten by a poisonous animal, a tight ligature should be made above the injured part, until suitable remedies can be employed. When the toe or finger is bitten, cutting it off immediately will prevent mischief from the poison.

It is also a fact that sucking the wound, immediately after being bitten, will arrest the progress of the poison. This was lately verified in the neighborhood of Augusta, in the case of a youth who was bitten by a rattlesnake, and the wound being instantly sucked by a man present prevented its mischievous effects; nor did any injury result to the operator.

When this remedy is resorted to, it may be prudent for the operator to guard his mouth with sweet oil or milk, and not swallow the saliva. It should never be attempted by a person with a sore mouth or very bad teeth.

HYDROPHOBIA,

OR THE BITE OF A MAD DOG.

THIS disease is so dreadfully alarming at all times, that we ought, as the best means of security, to endeavor to prevent it.

Therefore, as the infection of a rabid animal is conveyed by his teeth into the wound, the sooner it is removed, the less chance is there for absorption. Consequently, the bitten part should immediately be washed, and where it can be cut out, this should be done deeper and more extensive, than the wound itself. Then apply a cupping glass, with previous scarification, and cauterize the wound with lunar caustic. If the wounded part cannot be excised from its situation, it must be well washed, and then be scarified, and a free discharge of blood promoted by a cupping glass. This being done, the bitten part is to be well cauterized with caustic, and a proper discharge kept up for a considerable time.

In addition to this treatment, we should diligently employ mercury, both internally and externally, to excite a salivation. Opium, in such doses as are given in tetany, has been said to produce beneficial effects.

A strong solution of arsenic, in water, has been recommended as an excellent wash for wounds inflicted by rabid animals; this having been found to possess the power of destroying the poison, and thereby preventing hydrophobia from taking place.

It is probable, the caustic volatile alkali, might prove an antidote against the poison of a rabid animal, as that of the most venomous serpents.

The scull-cap, chick-weed, and emetic weed, [*See Materia Medica*] are considered valuable remedies in this dreadful disease. The most certain remedy, however, is to cut out the part; and this is certain at any period previous to the inflammation. If the wound is inflicted so deep that the bitten part cannot be separated, a caustic must be applied to what remains.

GUINEA WORM.

This disease is frequent among the *new* negroes, and is pretty uniform in its appearance.

The patient is at first sensible of an itching, and on examining the part, a small blister is generally to be perceived.—Frequently, two or three of these blisters manifest themselves; and at times, the part has the appearance of being stung with nettles. Beneath these blisters, or other affections, on raising the skin, there appears a small piece of mucus, on removing which, the head of a worm is to be seen. It is generally firmly fixed, and requires force to detach it from the parts beneath. When once separated with the forceps, it can be twisted round a ligature, or a piece of lint, and by this means, a portion of it, a foot or two in length, may be extracted in the course of one day.

In its appearance, it resembles what is called bobbin, or small tape, and is of the same size. It is transparent and moist, and appears to contain something like a white liquid. As much of it as will come away without pulling, is daily to be extracted. It is always dangerons to use force, on account of the risk of breaking the worm. When this accident happens, it occasions the most acute pain, accompanied with swelling and inflammation of the neighboring parts; and these symptoms will often continue for two or three weeks. In this case, the worm also takes a different course, and soon throws itself into another part.

SWALLOWING OF PINS.

Pins, and other hard and sharp pointed substances, sometimes pass into the gullet, and even into the stomach. It is too prevalent a practice, when any substance of this kind has passed into the stomach, to endeavor to hasten its passage through the bowels, by giving some opening medicine.

Milk alone, or mixed with raw eggs, should be immediately taken, as by the coagulation which takes place, the substance may become so involved, as to prevent its doing injury to the stomach; and on the same principle, should opening medicines, which render the fæces thin, be avoided; as by allowing the fæces to obtain some firmness, there will be the greater probability of the pointed parts of the substance being so sheathed, as to prevent their injuring the intestines. It is but rare, however, that any serious injury is done to the stomach by the point of the pin.

CHILBLAINS.

Symptoms. Are inflammatory swellings, chiefly affecting the heels, feet, and toes, and sometimes the arms and hands, attended with great pain and degree of itching.

Causes. This disease is owing to a weaker action of the small vessels most remote from the heart, occasioned by cold or dampness; and occurs most frequently among children, and people of delicate constitutions.

Treatment. Where the parts are frost bitten by long exposure to the cold, they should be plunged into the coldest water, and afterwards rubbed with salt. When they are only benumbed, they may be rubbed with strong brine, or spirit of camphor, or opodeldoc, [*See Dispensatory,*] to which, a little laudanum may be added, if the pain or itching be very troublesome; but when they crack and discharge an acrid matter, poultices should be applied, but not for any length of time, as their continuance is apt to produce fungous excrescences.—The application of diachylon plaster to the part, if the exciting cause be avoided, will afterwards effect a cure.

SCALDS AND BURNS.

The leading indication in affections of this kind, is to abate the pain; and this is effected by whatever induces insensibility of the part, as plunging it suddenly into cold water, covering it with ice or snow, or applying soft soap, brandy, laudanum, æther, or spirits of turpentine. Of these remedies, spirits of turpentine deserves the preference, especially where the skin is detached. A liniment prepared of bascilicon ointment and spirits of turpentine, and applied twice a-day to burns, when there is a loss of substance, alleviates the pain like a charm, and brings the sore to suppuration in a few days, which may afterwards be healed, by a liniment composed of equal parts of linseed oil and lime-water, or by the application of the simple saturine ointment, or Turner's cerate, [*See Dispensatory*] or what is preferable, an ointment made with the thorn apple. [*See Materia Medica.*]

The application of cotton to a burn or scald, admirably alleviates the pain. My honorable and highly esteemed friend, Dr. James Jones, of Virginia, stated to me the case of a child which fell in a tub of scalding water, being most wonderfully relieved of pain, immediately on covering it with carded cotton. After a few days, he directed the sores to be dressed with the thorn apple ointment, which soon completed the cure.

Blisters, which occur from burns, should be opened as soon as the irritation induced has subsided; and in order to prevent any bad effects from the admission of air, small punctures ought to be made, in preference to incisions.

When fevers attend burns, mild laxatives become necessary; and where the pain is violent, laudanum ought to be given in pretty large doses. Should the sores not heal kindly, astringent washes are necessary, as recommended for indolent ulcers.

HERNIA, OR RUPTURES.

The term rupture, was adopted when it was supposed that the disease was always the consequence of a rupture of some of the parts, which form the cavity of the abdomen or belly. But anatomical examination has shown, that this disease, as it most commonly appears, takes place in consequence of the protrusion of some of the contents of the abdomen through openings, which are natural to the human body, and without any violent separation of the parts. It will not be necessary to describe, particularly, the several kinds of ruptures which may occur. It will be sufficient to observe, that ruptures will generally appear in the groin, in the upper and fore part of the thigh, and at the navel. Those which appear, at first just above the groin, will, in general, if neglected, soon descend into the *scrotum*, in men, and into the *labia pudendi*, of women. The tumor, in this disease, is most commonly formed by a part of the intestinal canal, or of the omentum or caul, or of both.

In those ruptures which are capable of easy reduction, as soon as a pressure is properly made, the protruded intestine generally slips up, all at once, with a kind of gurgling noise, and the tumor immediately subsides; where the tumor has chiefly been formed by the *omentum*, it passes up more slowly, and without that particular noise which accompanies the return of the intestine.

In those cases of rupture, where stricture has taken place on the protruded parts, and the reduction is thereby rendered difficult, the belly becomes tense and painful, the pain of the belly, as well as of the tumor itself, being much increased on the least exertion, a total stoppage of discharge by stool takes place, and the patient is distressed by a sickness at the stomach, which increases until there is almost constant retching and vomiting.

To prevent these evils, it is only necessary that such a pressure be kept on the opening through which the part protruded, as may prevent its again falling out. The pressure of the fingers shows how effectually this may be done, and if, at the time this pressure is made, the patient but gently coughs, he will discover how forcible the protruding parts are driven outwards, and how necessary it is to guard against their future propulsion. The ingenuity of artists has devised a mode, by spring trusses, of applying a constant and properly adapted pressure, requiring little or no exertion, or even attention, of the patient himself. No person, therefore, in the situation just described, should suffer a day to pass, more than is absolutely unavoidable, without obtaining the comfort and security which will follow the application of a truss, since, if it be adopted at the first appearance of the disease, not only will the malady be stopt in its progress, but, if employed with constancy and steadiness, a radical cure may be gained.

If it be discovered that the return of the rupture is become difficult, and that a stricture on the protruded part has perhaps taken place, the person should place himself on his back, inclining to the side opposite to that diseased, with the head low, and the breech raised high, the knees being drawn upwards, and a little outwards. Whilst lying in this posture, he should endeavor, by such pressure as he has been accustomed to employ for its reduction, to return the protruded part. Should he not succeed in this attempt, he may lay on the part a piece of folded linen, dipped in cold water, and repeat his attempts. If these be also unsuccessful, he may then be assured that a stricture has taken place, and as his life depends on its speedy removal, no time should be lost in obtaining the best surgical assistance that can be had.

The *umbilicial hernia*, or the rupture of the navel, is most common to childhood, and is easily cured, if early attended to.

The means to be adopted are simply these—the protruded parts are to be returned, which may be easily done, by slight pressure with the finger, and retained in their proper situation, by a conical piece of very soft sponge, thoroughly cleared, by rubbing between the thumb and finger, of sand and minute shells, which may be lodged in its cavities. This being kept to the part, by the point of one finger, is to be secured by several slips of strongly adhesive plaster, three inches in length, crossing each other in a stellated form.

PROLAPSUS ANI,

OR FALLING OF THE FUNDAMENT.

It is occasioned by weakness of the part, which is aggravated by costiveness, hemorrhoidal swellings, diarrhœas, and particularly a tenesmus.

Treatment. The cure is to be effected by reduction of the part as soon as possible, and retaining it in its natural position, by a compress, secured with a bandage. To effect its reduction, the patient should be laid on his face in bed, with his buttocks raised above the rest of his body, and while supporting the tumor with the palm of one hand, the part of the gut least protruded, is to be first introduced with the fore finger of the other. As soon as the bowels are returned, the bandage is to be applied. When the protruded parts become inflamed, from being exposed to the air, before a reduction be attempted, the inflammation is to be alleviated by blood-letting, and fomenting the part with a warm decoction of mullein.

Persons who are subject to falling of the fundament, would do well to wash the part, immediately after evacuation, with a strong decoction of oak bark.

Such remedies as tend to recover the tone of the parts most readily, are to be used, as cold bathing partially applied, and injections of the decoction of bark, with the addition of a little laudanum, or starch, if there be an acrid discharge. With the same view, tonic medicines, as steel, columbo, or bark, should be taken thrice a-day. Persons subject to this disease, ought to use such diet as produces but little excrements, and those of a soft consistence. Rye mush and molasses, used exclusively as a diet for a few weeks, has been found to produce a perfect cure.

WARTS AND CORNS.

When *warts* are attended with inconvenience, they may be removed either by ligature or caustic, according to the extent of their base. The caustics commonly used for this purpose, are crude sal-ammoniac, blue vitriol, lunar caustic, or tincture of steel, applied every day.

As *corns* are formed entirely from pressure, we must carefully avoid the occasional cause, by wearing wide shoes; and for their removal, they should be bathed for some time in warm water, and then pared off as much as possible, without giving pain; after which, apply over them a wafer or diachylon plaster, to defend them from the cold air. Another method is to allow them to grow to some length, through a piece of perforated leather, properly secured by plaster, or any other means; and afterwards, to pick them out, or to cut round their root, by which they may, for the most part, be easily turned out.

WHITLOW,

Is an inflammatory swelling of the fingers, confined generally to the last joint, particularly under the nail, attended with a sense of most burning heat.

Causes. It is often induced by external violence, as the puncture of a pin, or contusion of the nail; but it most frequently takes place without any obvious cause.

Treatment. The moment that a sense of any preternatural heat, or pain is felt, in order to effect resolution, apply a blister, or let the finger be bathed, several times a-day, in a mixture composed of four ounces of spirits of camphor, half an ounce of laudanum, and two drachms of extract of lead. When those articles are not at hand, holding the hand in brandy, or sharp vinegar, or very hot water often repeated, and continued for some time, will likewise prevent suppuration. According to my honorable and worthy friend, John Taliaferro, Esq. of Virginia, the application of a plaster, composed of lime and soft soap, is a sovereign remedy.

Should, however, these means fail to produce resolution, the best method is to make an early opening down to the bone, which will occasion the patient much less pain, than allowing the matter gradually to make its own way to the surface; which, likewise, from the length of time required, is attended with more mischief to the parts. The wound is then to be brought to suppuration by emollient poultices, and afterwards, treated as an ulcer.

TUMORS, OR BOILS.

Every tumor terminates in one of the following ways:—By an absorption of the substance into the circulation, by a conversion into *pus*, or degeneration into scirrhus or cancer.

There are two plans for the treatment of tumors. Either by resolution or maturation. In the first, there is a dispersion of the swelling; and in the second, it is brought to maturity, and of course, a discharge takes place by spontaneous rupture, or by incision.

Treatment. In the treatment of tumors, we must be regulated by the nature and condition of them.

If, for example, they should appear on any part of the body, with only a slight degree of pain, tension, and inflammation, and no preceding indisposition, that may induce us to believe it to be the effort of nature, to get rid of some noxious matter, we should then endeavor to disperse the inflammation, by strictly observing a cooling regimen, by bleeding, by mild cathartics, and by topical remedies, as cloths wrung out of lead water, or saturine poultices, [*See Dispensatory*] often renewed.

But when they arise from bad habits of body, their suppuration in all cases should be promoted as soon as possible, by warm emollient poultices, as milk and bread, flaxseed, or mush and fat, renewed every three or four hours.

When the suppuration is complete, if the matter do not make its own way, the tumor is to be opened with a lancet or caustic, and after applying one or two poultices, it should be dressed with basilicon, [*See Dispensatory*] spread very thin on lint, night and morning, until it ceases to discharge; after which, with Turner's cerate, or some healing ointment. If fungous or proud flesh appear, it must be destroyed by sprinkling red precipitate, burnt alum, or rhubarb over it, or touch the protuberant part with blue vitriol or caustic.

Attention must also be paid to the general state of the system, since, if that particular state on which the tumors depend, is not changed, the patient may be harassed a considerable time by their recurrence.

Hence, in debilitated constitutions, the tonic and strengthening remedies, such as bark, sea bathing, &c., should be employed, and in robust and gross habits, sulphur, and cream of tartar, ought to be taken in doses of a tea-spoonful thrice a-day.

A tumor on the gums is to be brought to suppuration, by applying roasted figs internally to the part, as warm as can be borne; and afterwards, the mouth is to be frequently washed, either with the astringent or detergent gargle. [*See Dispensatory.*] But when it arises from a carious tooth, a removal of it becomes necessary, in order to effect a cure.

SCIRRHUS, OR CANCER.

A CANCER is a spreading sore, preceded by a hard or scirrhus swelling of the part, attended with pain, and, for the most part, a thin fetid discharge. Any part of the body may be the seat of this disorder, though it is mostly confined to the glands.

A scirrhus in the breast commences with a small, hard, and moveable kernel, like a pea, without discolouration and without pain. This generally increases in size and in hardness. The neighbouring parts become affected with a sense of pain and uncommon heat, as if touched with fire, or pierced with sharp needles. Inflammation now succeeds, which ending in an ulcer or open sore, the cancerous state begins.—When the surface of the skin is attacked by cancer, it generally begins with a small excrescence of the watery kind, which becomes a cancerous ulcer, on suffering even the slightest irritation.

TREATMENT. If the unfortunate subject of this malady is a young subject, and of a good constitution, and the complaint in its worst state, the best advice to be given is to apply to some experienced surgeon, and have the part extirpated immediately. When extirpation cannot be accomplished, every attempt should be made to stop the progress of the complaint, by general and topical blood-letting, by a cooling diet, consisting principally of milk and vegetables, and to keep the bowels open by the occasional use of mild cathartics.

In the incipient scirrhus state, wearing a hare or rabbit skin over the part affected, is extremely useful; and when this cannot be procured, a mercurial plaster will be found serviceable. Lead water, in this state, has likewise been employed with some success, by arresting the progress of the complaint. Every thing that tends to irritate, such as rubbing, picking, or handling the affected part, should be avoided. The clothing should be so regulated as not to press too hard on the tumor, nor to keep it disagreeably warm, nor leave it painfully cold.

When the cancer becomes ulcerated, various have been the applications, but those which give the least pain are the most eligible. The narrow leafed dock-root has proved an effectual cure of this malady, in many instances. The manner of applying it, is by boiling the root till it is quite soft, then bathe the part affected, with the decoction, three times a-day, as hot as can be borne, using the root in form of poultice.

Another remedy for this disease, is the solution of arsenic. It is to be taken inwardly, thrice a-day, in its usual doses, [*See Dispensatory*] and to be applied externally in a diluted state. A drachm of the solution is first to be diluted with a quart of rain water, and made gradually stronger, till it be double of that strength. This mixture may be either applied on lint, or made into a poultice with the crumb of bread.

The solution of kali on lint, has also been employed with some success in cancerous ulcers, beginning with it weak, and gradually increasing its strength.

The charcoal powder [*See Dispensatory*] is an excellent application to cancerous sores, particularly when they have an offensive smell. It may be daily applied in powder on lint, carefully observing not to expose the ulcer to the air on changing the dressing. Carrots [*See Materia Medica*] are also a good application to fœtid ulcers.

COMMON ULCERS.

No disease occurs more frequently among the poor and negroes, than ulcers of the legs; for this obvious reason, they are more exposed to accidents, and when they meet with a wound or contusion in the leg, the injured part inflames, and becomes an ulcer for want of proper care. Women with obstructed menses are also subject to this disorder.

Ulcers receive various appellations, and require different modes of treatment, according to their appearances, or the causes, and peculiarities of the constitution of the patient.—Where the disease is local, topical remedies only are necessary; but when it is connected with any disorder of the constitution, medicines that affect the whole system, are absolutely necessary. When ulcers appear to have had any effect, either in carrying off, or preventing disorders to which the constitution may have been liable, a cure should not be attempted, until an issue is made in some more convenient part, which should be made to discharge nearly as much as the ulcer.—[*See Issues.*]

An ulcer not attended by any considerable degree of pain and inflammation, and which affords a discharge of mild matter, of whitish consistence, the granulation firm, red, and of healthy appearance, is called the simple purulent ulcer, and is entirely a topical affection. This ulcer is the most simple that can occur, both in its symptoms and method of cure; and it is to the state of such a sore, that every other species must be reduced before a permanent cure can be effected.

The causes of purulent ulcers are, all wounds that do not unite without the formation of matter, and every external accident that terminates in suppuration, with an opening as a consequence of it.

In the cure of this species of ulcers, first remove any inflammation which may attend it, by emollient poultices, as bread and milk, renewed every three hours. As soon as the inflammation subsides, omit the poultices, lest the granulations be rendered lax and flabby, but keep the sore clean, and dress with some mild ointment, such as Turner's, or the simple cerate, [*See Dispensatory*] spread very thin on soft lint, or apply dry lint, and upon that, a piece of linen spread with the ointment. The thorn apple ointment [*See Materia Medica*] is a most valuable application to heal sores. The frequency of dressing ulcers must depend on the quantity of matter discharged; but in general, they should be dressed once in twenty-four hours in winter, and twice in summer, and the greatest care should be taken, in renewing the dressings, not to expose the sore for any time to the air. When the ulcer is filled up with sound flesh, the remaining part of the cure consists in the formation of a cicatrix. This is frequently the work of nature, but, in many cases, when every deficiency appears to be supplied, still a cure is tedious, the surface of the sores remaining raw, and discharging freely. In such cases, the sores should be washed twice a-day, with simple lime water, or with some of the astringent washes. [*See Dispensatory.*]

Ulcers of the irritable kind, which yield a thin ichorous discharge, sometimes bloody, and give pain on being touched, are brought to a favourable state by warm fomentations, as decoctions of marsh mallows, slippery elm, wormwood, cammomile flowers, or hops, [*See Materia Medica*] and by poultices of the same ingredients, to which may be added bruised flaxseed or oatmeal. But so soon as the irritability of the ulcer is removed, these applications should be discontinued, and the common remedies for ulcers employed.

However, there are cases of irritable ulcers being rendered more painful by the application of any thing warm, and when this happens, such fomentations are not to be employed.—There, the sweet oil or saturine poultices applied cold, will be found most beneficial.

Indolent ulcers which are marked by a backwardness in forming granulations, and in those that are formed, a want of sufficient strength to bring about a complete cure, require stimulating applications, as lime water, solution of kali, blue vitriol, or any of the astringent washes. Lint dipped in either of those solutions, that may be found to agree best with the patient, should be applied twice in twenty-four hours to the sore, after being carefully cleansed with castile soap and water. The strength of the solution should be gradually increased every two or three days; for what at first gives considerable pain, will soon lose that effect. Tincture of myrrh, pure or diluted, according to the state of the ulcer, is, in many instances, a good application, and a decoction of walnut leaves, is exceedingly useful in disposing foul ulcers to heal.

In some superficial ulcers, attended with a thickening of the skin, and when there is an unusual coldness of the limbs, without any tendency to mortification, warm salt water has been used with the greatest advantage.

There is nothing of more importance, both in facilitating and ensuring a permanent cure of ulcers on the legs, than compression, which, however, should never be employed until the inflammation has subsided. As soon as this desirable event shall have taken place, and the usual dressings are applied, the affected part should be covered with several foldings of soft linen rags, and the whole secured upon the part with a calico or flannel bandage, three inches in breadth, and four or five yards in length; or rather, as much as will support the limb from the foot to the knee.

This bandage should be applied with as much firmness as can be borne by the patient, and as much evenness as possible, by passing it first round the leg at the ancle joint, then once or twice round the foot, and afterwards up the limb in a spiral manner, until it reaches the knee, observing, that each turn of the bandage have its lower edge about an inch above the lower edge of the fold next below. If the compression should give pain and produce inflammation, the part that is effected should be moistened with cold water, poured from a tea-kettle or tea-pot, and repeated as often as the above symptoms may indicate the necessity.

Should any disease prevail, its removal must first be effected. If the patient be weak, the diet should be nutritious, and tonic medicines, as bark, or the nitric acid, given in their usual doses. But if, on the contrary, of a plethoric habit, he should observe a spare and cooling regimen, and take a teaspoonful of cream of tartar and flour of sulphur thrice a-day. In obstinate cases, small doses of calomel, until the system is affected with it, or the use of poke-berry bounce, will assist the cure.

WOUNDS.

The cure of all wounds is effected two ways, either by adhesion or suppuration; and previous to attempting either of these modes, the hemorrhage or further effusion of blood should be restrained, and any extraneous substance removed.

Hemorrhages are to be restrained by the application of dossils of lint, or by the tourniquet, or pressure with the hand, above the wounded part, until a ligature can be applied.

In dangerous hemorrhage, or bleeding in the extremities, we have known the curative operations wonderfully assisted by simply raising the limb as perpendicularly as possible. In the erect posture, the gravity of the blood so checked its velocity as to enable the surgeon, with great care, to stop its effusion, which he had not been able to effect while the limb was pendent, and its vessel distended with blood.

Simple as this suggestion may appear, it is a new discovery in the science of healing, for which, we are indebted to professor Physic, whose extraordinary skill in that noble art, has conciliated to him that very amiable title, "the American Hunter," and for safety of all surgical operations, has placed Philadelphia on the same high level as Edinburgh itself.

When ligatures are necessary, in consequence of large arteries being wounded, the following rules are to be observed in applying them. If you have no tourniquet, take a garter or a cord, make a small linen cushion, about four or five inches long, three broad, and about two thick, or roll up a handkerchief hard, in a similar form, and lay it on the trunk of the artery above the wounded part; put the garter or cord over the handkerchief, round the limb; tie a knot, leaving a proper space; and then twist the ligature with a piece of stick, until the hemorrhage is completely restrained; you are then to prepare a ligature, formed of two or three white waxed threads, proportioned to the size of the vessel; after which, slacken the bandage, in order, by its hemorrhage, to discover exactly the situation of the artery, and with a *tenaculum*, or a crooked needle, stick its point into the coat of the artery, and draw out the latter for an eighth of an inch, when a ligature, previously placed over the instrument in the manner of a ring, by one of the ends being put twice through the other, termed the surgeon's knot, is to be pulled over the point of the needle by an assistant; and when upon the vessel, its two ends should be drawn gently, until the sides of the latter are compressed. A second knot, if the artery is large, may be then made, after which, the instrument is to be removed, and the ends of the thread or ligature cut off, at such a distance, that they may hang at least one or two inches without the edge of the wound.

When a small artery is wounded, if it be divided, it retracts, and the hemorrhage presently ceases. If it is punctured, the wound should be enlarged, and then the artery may be tied, if proper pressure proves ineffectual. Sand, dust, or small pieces of glass, &c., are best removed by washing the parts in warm water, either by means of a sponge, or of a syringe.

In the third place, as the principal object, proceed to the employment of those means, which will probably heal the wound in the most easy and expeditious manner; for the longer this is neglected, the less is the part disposed to heal.—Whenever the nature of the injury will admit of it, the divided parts should be immediately brought into contact, the irritation excited by the wound itself, will then generally be productive of a certain degree of inflammation, which will accomplish a union in the course of a few days; however, in relaxed habits, with symptoms of debility, the application of some stimulants, as Turlington's balsam, spirit, or balsam of apple, will be required to produce that effect. The wound is then said to be healed by the first intention, and this mode of cure should always, when practicable, be attempted. The means of drawing and preserving divided parts in contact, are bandages, adhesive plasters, and sutures. With respect to the two first, these should always be preferred to the latter, in wounds that do not penetrate to any considerable depth.

The mode of applying adhesive plasters is by straps; one half of which, is fastened on one side of the wound, and the other on the skin, on the other side of the wound, drawing it tight, and holding it firm until the warmth of the part secures it; but if the wound is deep, this contact of the sides must be made by sutures.

In forming sutures, it should be observed, that one stitch, or suture, is sufficient for every inch of wound, and that the ligature or stitch, should always be carried near the bottom of the wound, and the threads passed from within, outwards.—Thus, a needle being put upon each end of the same thread, well waxed, and each of the needles inserted at the bottom of the sore, when pushed outwardly, about half an inch to an inch from the edge of the wound, according to its depth, will form one stitch, and the needle being withdrawn, the same thing is to be repeated, according to the extent of the wound. When all the stitches are completed, the lips of the wound are to be pressed together, and supported in that position, until the ligatures are tied in the manner as already directed for making a surgeon's knot.

It is of consequence to observe, that where the sutures or adhesive plasters have been neglected at first, they may be employed with advantage during any stage of the sore, as the parts will unite at any time very readily; and it will expedite the cure very much, to bring the edges of the ulcer into contact, whenever it can be done. When the parts are brought together, in the manner directed, in order to prevent the access of air, it will be proper to cover them with lint, spread either with a thick mucilage of some mild gum, or some bland ointment, as the simple saturine, or thorn apple ointment; or, in debilitated or relaxed habits, apply Turlington's balsam.—[*See Dispensatory.*]

The first dressing of wounds should never be removed, until the cure be completed, or until they appear to be covered with matter, unless the pain in the wound becomes severe, and is productive of much inflammation; and then the dressings should immediately be removed, and the parts gently rubbed with some olive oil, and a plaster of saturine cerate, spread on soft lint, applied. If this prove insufficient, and the inflammation is observed to rise still higher, a separation of the lips, the stitches tense, and the points where stitches pass, particularly inflamed, cut the ligatures, and take away every thing that is like stricture upon the wound. All hopes of procuring adhesion must now be abandoned, and the wound should be brought to a speedy and plentiful suppuration, by flaxseed, or milk and bread poultices, often renewed; and as soon as there is a full appearance of pus, with relief of the more violent symptoms of inflammation, the poultices should be laid aside, and the sore then treated as a simple ulcer.

When the sutures or plasters have been applied, and the symptoms of pain and inflammation continue moderate, they may generally be removed about the fifth or sixth day, as a union will by that time be produced.

Gun-shot,* or lacerated and contused wounds, as marked by their ragged and unequal edges, are the most dangerous of all others, from their disposition to gangrene. Hence, it is obvious, that in these wounds, the means to guard against mortification should be early employed. In the treatment of wounds of this description, three stages are to be observed in its progress, which may be termed the inflammatory, suppurant, and the incarnating. In the management of the first or inflammatory stage, especially if the patient complain of much pain, blood-letting should be had recourse to, and repeated according to the violence of inflammation and strength of the patient; and if possible, to procure leeches, these should be applied near the edges of the sore. Emollients are then to be used, as pledgets of mild ointments on the wound, with poultices of bread and milk, or flaxseed laid above, and renewed every three or four hours, in order to promote a speedy suppuration, which are the best means of preventing gangrene. When the pus is freely formed, a separation of the most injured parts takes place, and as soon as they have come away, the edges of the wound may be brought together by plasters or bandages, but no kind of suture should be employed; and the sore will then come to be treated as a simple ulcer.

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*Speaking of gun-shot wounds reminds me of a most awful and melancholy event, which not long since took place in Charleston, S. C.— I mean the death of the great physician and historian, Dr. David Ramsay.

This gentleman, whose urbanity of manners, and extraordinary literary acquisitions, had rendered him the brightest ornament of science and society, was suddenly cut off amidst his usefulness to his family and country, by the pistol of a lunatic. The untimely fate of so truly amiable a man, and so distinguished a physician and patriot, as Dr. Ramsay, will long be remembered with the deepest regret.

In the second or suppurant stage, the chief point is to check the excess of suppuration, and dispose the wound to heal.—This depends on a light nourishing diet, with wine, and the plentiful exhibition of bark and elixir vitriol.

The third or incarnating stage is promoted, by placing the member in a proper position, to give a free discharge of matter, assisted by pressure at the same time, and by opening every collection which appears, by removing splinters, bones, or whatever causes irritation—and by healing with astringent dressing of lint, dipt in the solution of alkali, lime water, or any of the astringent washes, [*See Dispensatory*,] when the discharge is excessive.

In the progress of wounds, certain constitutional symptoms arise, that demand particular attention, these are pain, inflammation, and convulsive affections. The first of these usually goes off in a short time, by attending to the posture and ease of the wounded part, and moving any extraneous irritation; but when it continues very violent, and for a longer time than usual, it will be necessary, in the first place, to try the effects of laudanum, in doses of eight or ten drops every two or four hours; and when the inflammation is violent, to unload the vessels by topical bleedings; which may be further aided by fomentations and emollient poultices. If these are not sufficient, and the pain still continues acute, it probably depends on a partial separation of nerves; to relieve which, a complete division of them should be made. The latter complaints are spasmodic, which vary in degree from the slightest convulsive twitching, to the highest state of the spasm in the attack of the lock jaw. They are frequently the effects of trifling injuries: a small scratch, for instance, which does not penetrate to a greater depth than the skin, will sometimes induce them; and when they happen, as the consequence of large wounds, they do not make their appearance until the sore seems nearly healed.

Upon the first symptoms of these affections, the patient should be immersed in a bath of warm water, soap-suds, or a ley made with wood ashes, as long as he can bear it, and opium, should be exhibited in pretty large doses, every two or three hours, as the symptoms may indicate. When this fails, the malady is to be treated by remedies prescribed for tetany.

The constitutional treatment of wounds requires, during the inflammatory stage, the strictest attention to the cooling regimen, a low spare diet, an occasional use of laxatives, and the wounded part kept in such a situation as affords most relief. When suppuration is formed, a fuller diet will then be necessary; and if the discharge of matter is excessive, bark and elixir vitriol must be employed.

MORTIFICATION.

THE word mortification, in its present acceptation or meaning, is generally supposed to have place where the circulation is no longer performed through the diseased part, which generally turns black, and becomes putrid, producing a separation of the diseased surface from the sound flesh, like an *eschar*, in consequence of a caustic having been applied. In the incipient stage of this disease, which is termed gangrene, there is generally a very high degree of inflammation, and a swelling of the parts affected, with some vesications, like those from scalds, but of different colours, according to the extravasated fluid, with which they are replete; sometimes pellucid or yellow, at other times black or brownish.

While things are in this state, attempts should be made to prevent a sudden change to a mortification: but in order to effect this, it must be observed, that a tendency to mortify may be owing to very opposite causes. It must, therefore, be extremely obvious to every man of consideration, that there cannot be any thing properly a specific for a disease, where a *plethora* or fulness is the cause in one subject, and inanition in another.

We know very well that all inflammations may terminate in mortifications. It is also of importance to know, that where there is a languid circulation, as in old age, or in cases of excessive debility, from protracted fevers, the extremities not only threaten soon to become gangrenous, but the progress to mortification is often very rapid under such circumstances; for not only the vital heat is deficient, but the vessels themseves are frequently diseased, and though duly distended with blood, are incapable of reacting on the contained fluid, which, consequently, in time, must stagnate in the small vessels.

Hence, it is obvious, that a mortification may proceed from a circulation that is too rapid, or too languid; and, consequently, the treatment must vary according to circumstances, and the cause of disease.

In the first case, general blood-letting, diluent drinks, with nitre dissolved in them, and the cooling regimen in every respect, are indispensable for its cure. And in the second, a liberal use of cordials and invigorating medicines, as wine and bark, to raise and maintain the vital heat, and to check the progress of putrefaction, can alone be depended upon.

When the mortification proceeds from too languid a circulation, or when there is much pain, opium or laudanum is one of the greatest cordials, and should be taken freely every three or four hours, but not in such doses as to produce its narcotic effects.

The best external application to arrest the course of gangrene or mortification, is to apply a blister over the gangrenous part, sufficiently large to cover one or two inches of the sound flesh, and afterwards to dress the part with cataplasms, made of bark, charcoal powder, and yeast, to be renewed every three or four hours, or as often as they acquire a putrid smell.

When the mortified parts begin to separate, remove no more at each dressing than comes away without pain or loss of blood; and as soon as the gangrene stops, and granulations of good flesh appear, it is to be treated as a simple ulcer.

SPRAINS AND BRUISES.

In the treatment of sprains and bruises, the chief point is to give an instantaneous vigor to the solids, so as to prevent the increase of effusion. Hence, the part should be instantly plunged into cold water. After this, cloths wetted with vinegar or lead water, to which, laudanum may be added, should be applied, and renewed as fast as they grow warm, until the pain and inflammation have somewhat subsided. The sprained part may then be dressed two or three times a-day, with a bandage of brown paper, dipt in warm vinegar and spirits, or embrocated with opodeldoc or volatile liniment, [*See Dispensatory*] always observing to preserve the part in the easiest and most relaxed posture.

In addition to this local treatment, if the patient be of a plethoric habit, or the injury very severe, blood-letting, cooling cathartics, and a light diet, are particularly enjoined.—When bruises have been neglected at the onset, or become painful, warm fomentations of bitter herbs, are extremely useful; and their good effects will be considerably aided by applying the ingredients themselves as a poultice to the part, as warm as can be borne, and sprinkled with a little finely-powdered camphor.

After serious sprains, the patient often complains of weakness and uneasiness in the injured parts. In such cases, a stream of cold water poured on the part at a considerable height, from the spout of a tea-kettle or pitcher, two or three times a-day, completes the cure, especially if a flesh brush or flannel be vigorously used immediately before and after the application. Some assistance will likewise be obtained by the use of a bandage or roller, to confine the swelling when that symptom occurs.

DISLOCATIONS.

Dislocation is the removal, by force, of an articulated bone from its natural situation, which is easily known by a degree of protuberance on one side, equalled by a corresponding hollow on the other; by comparing the joint of one member injured with its fellow; by an inability to move the injured limb; and by pain and tension in the part affected. In whatever part a dislocation happens, it is of great importance to have it reduced as soon as possible, because, by delay, the operation becomes extremely difficult, and is very frequently rendered impracticable, after the inflammation and swelling have come on.

Therefore, whenever this accident happens in the country, if medical assistance cannot immediately be obtained, the most intelligent person present should reduce the bone.

In the replacing of dislocated limbs, the principal object to be attended to, is the mode in which the extension is made, for the success of the operation depends more on this, than the force with which it may be applied. Therefore, gradually extending from one side to the other, and gently moving it upwards and downwards, is more likely to succeed, than strong extension in a right line: the force should be begun very gradually, and increase slowly at each trial, in case it resists the first. In case of a luxation being obstinate to reduce, bleeding, so as to cause faintness, may often be used advantageously, and whilst the patient is in a weak state, there is a greater probability of success, from extension well directed; the operator, at the same time, endeavoring, with his hands, to replace the dislocated end of the bone.

After the bone is replaced, compresses made by two or three folds of old linen, wetted with vinegar or lead water, should be constantly applied to the part, in order to obviate inflammation; and the limb should be retained in its natural situation, by bandages, which should neither be applied over-tight, nor over-loose; as in one case, they would compress too much, and in the other, they would be of no use to the parts.

Where inflammation has taken place before the reduction is accomplished, it cannot be performed until that is overcome. For this purpose, we must adopt the antiphlogistic plan, such as bleeding, keeping the bowels in a laxative state, by the occasional use of the cathartic mixture, and using warm drinks, together with the camphorated powders, and the antimonial solution, [*See Dispensatory*] in their usual doses, in order to promote perspiration.

DISLOCATION OF THE JAW.

The lower jaw may be luxated by yawning, blows, falls, chewing hard substances, or the like. This accident may be known to have taken place from the patient's being unable to shut his mouth, or eat any thing. The chin, likewise, either hangs down, or is wrested to one side; and the patient is neither able to speak distinctly, nor to swallow without considerable difficulty.

The common method of reducing a dislocated jaw is to place the patient upon a low stool, in such a manner that an assistant may hold the head firm, by pressing it against his breast. The operator is then to push his two thumbs, protected with linen cloths, that they may not be bitten when the jaw slips into its place, as far back into the patient's mouth as he can, and then, with his fingers applied to the outside of the angle of the jaw, endeavor to bring it forward, till it move a little from its situation. He should then press it forcibly downwards,* and backwards, by which means the elapsed heads of the jaw will immediately slip into their place.

DISLOCATION OF THE SHOULDER.

The humerus or upper bone of the arm is the most subject to dislocation of any in the body, and may be luxated in various directions. The accident, however, happens most frequently downwards, and very seldom directly upwards. This dislocation may be discovered by the patient's inability to raise his arm, as well as by violent pain in attempting it, and by a depression of cavity on the top of the shoulder. When the dislocation is downward or forward, the arm is lengthened, and a ball or lump is perceived under the arm-pit; but when it is backward, there appears a protuberance behind the shoulder, and the arm is thrown forward towards the breast.

The usual method of reducing a dislocation of shoulder is to set the patient upon a low stool, and to cause an assistant to hold his body firm, while another lays hold of his arm a little above the elbow, and gradually extends it. The operator then puts a napkin under the patient's arm and causes it to be tied behind his own neck. By this, while a sufficient extension is made, he lifts up the head of the bone, and with his hands directs it into its proper place. In young and delicate persons an operator may generally reduce this dislocation by extending the arm with one hand and thrusting in the head of the bone with the other. In making the extension, the elbow ought always to be a little bent.

If much difficulty occur in the operation, blood-letting, sometimes so far as to produce fainting becomes necessary. This remedy seldom fails to facilitate the reduction.

DISLOCATION OF THE ELBOW.

The bones of the fore-arm may be dislocated in any direction, but most commonly upwards and backwards. In this luxation, a protuberance may be observed on that side of the arm towards which the bone is pushed, from which circumstance, joined to the patient's inability to bend his arm, a luxation at the elbow may be known.

For reducing a dislocation at the elbow, two assistants are for the most part necessary: one of them must lay hold of the arm above, and the other below the joint, and make a pretty strong extension, while the operator returns the bones into their proper place. The arm must afterwards be bent, and suspended for some time with a sling about the neck.

Dislocations of the wrist and fingers are to be reduced in the same manner as those of the elbow, viz. by making an extension in different directions, and thrusting the head of the bone into its place.

DISLOCATION OF THE THIGH.

When the thigh-bone is dislocated forward and downward, the knee and foot are turned out and the limb is longer than the other; but when it is displaced backward, it is usually pushed upward at the same time, by which means the limb is shortened, and the foot is turned inward.

When the thigh-bone is displaced forward and downward, the patient, in order to its reduction, must be laid upon his back, and made fast by bandages, or held by assistants, while by others an extension is made by means of slings, fixed about the bottom of the thigh a little above the knee. While the extension is made, the operator must push the head of the bone outward until it gets into the socket. If the dislocation be outward, the patient must be laid on his face, and during the extension the head of the bone must be pushed inward.

Dislocations of the knees, ancles, and toes, are reduced much in the same manner as those of the upper extremities, viz. by making an extension in opposite directions, while the operator replaces the bones. In many cases, however, the extension alone is sufficient; and the bone will slip into its place merely by pulling the limb with sufficient force. It is not hereby meant that force alone is sufficient for the reduction of dislocations. Skill and dexterity will often succeed better than force; and one man who possesses them has been able to perform what the united force of many was found inadequate to accomplish.

INJURIES OF THE HEAD,

AND FRACTURES OF THE LIMBS.

If, in consequence of a bad fall or blow, a considerable injury appears to have been received, the sufferer being unable, in consequence of the loss of his senses, to point out the injured part, some consideration is necessary before any attempts are made, even to raise him from the ground. Because, should a fracture of one of the bones have happened, and not suspected by his assistants, their exertions to raise him, and to place him on his feet, might force the ends of the fractured bone through the soft part, and convert a simple fracture into a very dangerous compound one. The limbs, therefore, should be carefully examined, but even if they seem to have sustained no material injury, yet should the patient not be precipitately raised, until something be provided, on which he may be placed, as, thereby, unnecessary and perhaps injurious exertions are avoided.

As it will be fair to conclude, from the deprivation of the senses, that the brain may have sustained some injury, great care should be taken to convey the patient to his apartment, with as little injury as possible, and, whilst laying in bed, the head should be somewhat raised. If the patient be of a pletheric habit, a moderate bleeding will be required as soon as possible after the accident; after which, the bowels should be evacuated either by purgative medicines or clysters. One or two stools being procured, and if possible the warm bath used, the anodyne sudorific drops, [*See Dispensatory*] should next be exhibited, to produce perspiration, and to excite absorption of the extravasated blood; and this mixture should be continued, in doses of ten or twelve drops, every four or six hours, until the patient is out of danger, observing to keep the bowels open.

During convalescence, the bark, columbo, or steel, with wine may be employed. If there be a laceration of the scalp, every attempt should be made to induce suppuration of the part, by the application of warm fomentations or poultices, and this taking place, a relief of all the symptoms will occur, when it is to be treated as a simple wound.

But should it be discovered, that a *leg* or *thigh* is broken, the patient is not to be stirred until a proper vehicle, as a door, or two or three boards well secured together, is procured, on which he can be placed. To place him on this, two persons may raise him by means of a sheet slid under his hips, whilst one raises him by the shoulders, one person raising the sound leg, and one carefully conducting the fractured limb, which should be placed on a pillow, with the knee a little bent. The best mode of conveyance is undoubtedly by two or four men, and a carriage should never be employed, when this mode can be adopted. As the patient will be under the necessity of laying some time without getting up, much subsequent pain and exertion will be prevented, by preparing the bed in the following manner:

In place of the laced canvass, bottom boards are to be laid across the bed frame, which makes the bed hard and keeps it perfectly level and smooth during the cure. In place of a feather bed a mattress only is to be laid above those boards; over this another, cut into four parts, with a piece of a sheet sewed round each portion, is to be placed that they may be shifted under the patient from time to time. On the bed thus prepared, a pillow, like a mattress, flat and firm, is to be laid for receiving the limb.

In setting a broken bone, very little extension is required, nor should tight and firm bandages be used, which give considerable pain to the patient without the least benefit. In a simple fracture of the thigh or leg, with patients not unruly, very little more is necessary than to restore the foot to a right direction with regard to the leg, and then stretch out the limb on a well made pillow, observing to extend, straighten, and lay it anew, when it is disordered or shortened, without fear of hurting the callus. And when you have placed the limb between two splints, or troughs, made of untanned leather or pasteboard, which have been previously soaked and softened, the whole braced down with ribbons or tapes which may preserve it steady, you have done every thing.

Having prepared two long troughs, or pieces of untanned leather or paste-board bent in a hollow form, lined, or rather cushioned with two or three folds of flannel, with tapes or ribbons, four or five in number, attached to the outside of one of the splints, by which both splints may, after all is over, be gently tied together with bow knots, to be slackened or tightened, according to the swelling of the limb; you are then to place these by the side of the fractured leg, and direct one of the assistants to apply his hands broad around the upper part of the limb, and grasp it gently and steadily; take the foot and ankle in the same manner in your own hand; slip your left hand under the broken part of the limb, slide it gently along, and then lay it upon the splints, to which the ribbons are attached.

If the bone cannot be reduced by this extension, endeavour to force it in with your thumbs. Begin then to lay the limb smooth; let your assistant again grasp it, by spreading his hands upon the thigh, or below the knee with the design of extending, along with you, not by lifting the leg from the pillow, but rather by keeping it down, and steadying it by pressure, while you, with both hands, lift the foot and ankle, grasp them gently, but firmly; raise them a little from the pillow, and draw gently, steadily, and smoothly. When you have thus extended and smoothed the broken leg, in a manner which you almost suppose agreeable, rather than painful, to the patient, press it down gently, and steadily upon the lower splint; the upper is then to be laid above it; and by grasping the soft and moistened splints, you must model them a little to the shape of the limbs. When the whole has taken a form, tie several tapes, one after another; and after having tied them in a general way, go over them again, one by one, and tie them a little closer, so as to keep the limb agreeably firm.

The process is either slower or more imperfect in children and old people: their bones, therefore, are more apt to be broken again; hence with them, the splints should be kept longer applied. On particular occasions, also, particular precautions must be taken. Thus with delirious patients, and those who are liable to sudden motion, as when at sea, the limb after being set must be laid between two pillows, and the pillows fastened to the bed. It is also, sometimes necessary to make the splints more secure, and this may be done by soaking a roller or bandage in whites of eggs, mixed with a little flour; or by strewing a little powdered rosin on the bandage, and afterwards soaking it with spirits of wine; or finally, by soaking the bandage with fine glue, which makes a firm case, and is far from being offensive.

Lastly, though splints and bandages in general are unnecessary during the cure; yet, when a patient rises from bed, rests the weight of his body on a fractured bone, and begins to be exposed to accidents, the splints laid along the limb should be made firm by a bandage or roller as above described, to prevent those accidents which may be incurred by precipitation and rashness.

In *fractures* of the *arm*, the parts hang naturally in the best posture, and require but two splints of thin paste-board, rolled gently with a linen roller: and in fractures of the fore arm, the limb preserves its natural length or form; it requires merely to be laid upon a long splint of paste-board, with a small splint laid above, the two splints being secured with light ribbons or tapes, and the arm from the elbow to the fingers' ends supported by a sling or handkerchief round the neck, raising the palm of the hand to the breast, with the fingers moderately bent.

When the arm is fractured between the elbow and shoulder, the fore arm may be placed in the same position, as already described; but the sling, instead of supporting the whole length of the arm, should only support the hand, which should be raised higher than in the former case, the elbow being allowed to sink; its motion, however, being prevented, by a handkerchief passed moderately tight round the trunk, including the fractured arm.

When the *small bones* happen to be fractured, they must be replaced and retained in their situation, by splints and bandages fitted to the part. In using splints of pasteboard or untanned leather, it is always necessary they should be applied in the first instance wet, so as to assume the form of the fractured part. After the first fortnight, the dressings should be occasionally removed to allow some motion of the joints; and then replaced, and daily removed for the same purpose.

When there is an external wound, communicating with the cavity of the fracture, it is termed a compound fracture. This sometimes occurs by the protrusion of the bone; at other times by the same force which caused the fracture. In such cases, the bone is to be reduced by carefully attending to the posture of the limb, and by dilating the wound, when the bone becomes girded in it. The wound is then to be dressed with dry lint, in order to allow the blood to coagulate, which will form a kind of scab, and every effort should be made to unite the wound by the first intention, thereby converting the accident to the state of a simple fracture.

Almost all fractures are attended with contusion and consequently swelling; the abating of which is the first step that should be taken towards the cure, and is to be effected by bleeding, if the patient is of a plethoric habit, by mild purges, a cooling regimen, and by the exhibition of the anodyne sudorific drops, as already described: the application to the parts affected should be vinegar or lead-water, with crumbs of bread, or poultices made of stale beer, or vinegar and oatmeal, with a little oil to prevent their growing dry or stiff.

The swelling of the limb being subsided, and the callus formed, cold water may be poured through the spout of a tea kettle over the fractured limb every morning to restore the tone of the injured parts.

FRACTURES OF THE RIBS.

THE ribs are broken, for the most part, near to the middle. The accident usually proceeds from blows or falls, and is known by an acute pain in breathing, and a crepitus or grating being perceived, on pressing the rib in different places. By carefully passing the hand over the rib, the inequality produced by the fracture may be sometimes distinctly felt. Coughing produces a crepitation, which is frequently perceptible to the patient himself as well as to the by-standers.

The only treatment necessary, in simple fractures of the ribs, whether one or several be broken, is to keep the part, during the reunion, as much as possible in a state of rest. This is done by counteracting, to a considerable extent, their motion in respiration. To effect this, a bandage, six inches wide, is to be passed repeatedly round the chest, as tightly as the patient can suffer it to be drawn. Its slipping down may be prevented by means of a shoulder strap.

Or instead of a roller, a jacket, of strong linen, capable of being drawn very tight, by means of tapes, may be used. Until the reunion be completed, the patient should be kept as quiet as possible.

If the lungs be wounded by a splinter of the rib, blood will be spit up, and high fever and inflammation will be likely to ensue. In this case, blood must be drawn copiously from the arm; and the patient be treated, in all respects, as if he were labouring under pleurisy.

BLOOD-LETTING.

THE art of opening a vein, and the necessary cautions respecting the operation, should be learned by every one; since cases of emergency may happen, when the necessity of its being performed is evident, and where life may be lost before medical assistance can be obtained. Another qualification necessary to be possessed, is that of being able to stop the flow of blood from a vein thus opened.

To bleed, you are to apply a ribbon or ligature with a degree of tightness, an inch or two above the elbow joint; and as soon as a vein is conspicuous, place the thumb of your left hand about an inch below the place of your puncture, and then with your right hand, holding the lancet firm betwixt your thumb and fore finger, make an incision obliquely into the vein, without changing its direction, or raising the handle, lest the point, being lowered in proportion, should cut the under part of the vein, or perhaps even wound an artery.*

When the quantity of blood you wish is drawn, untie the ligature, and close the orifice. To accomplish this, let the thumb be placed on the orifice, so as to bring its sides together, and to press it with a moderate force. The flow of blood will now be stopped, and the operator, with the hand, must apply a compress, made by twice doubling a piece of linen, about two inches square, between the orifice and his thumb; over this, place another compress, three or four inches square, of a thickness sufficient to fill up the hollow of the bend of the arm, confining the whole with a ribbon or tape, passing over the compress, and above and below the elbow; in the

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*To discriminate between an artery and vein, is a matter of the utmost importance. This is readily done if proper attention be paid.—The chief mark of distinction is, that the *artery* has a pulsation, which the *vein* has not.

But frequently it happens, that an artery lies so immediately under a vein, that its pulsation may be felt through the vein. In such cases it will be prudent not to open the vein unless the operator is skilful; for it must be attended with danger.

form of a figure eight, finishing with a knot over the compress.

If the bleeding continue obstinate, the sleeve of the gown or coat above the orifice, ought to be ripped or loosened; and if this do not succeed, the lips of the incision should be brought nicely together, and while they are compressed firmly by the thumb of the operator, the coldest water should be poured on the arm, or the orifice washed with sharp vinegar. The placing of a piece of adhesive plaster over the orifice in the vein generally succeeds in checking the flow of blood.

To bleed in the foot, a ligature must be applied above the ankle joint, and after opening the most conspicuous vein, if the flow of blood is not copious, it may be increased by immersion of the part in warm water. On removing the ligature, the blood will readily cease to discharge, and a piece of court-plaster is the best bandage.

Topical blood-letting is executed by the application of leeches, as near as possible to the part affected, or by a scarificator, or an instrument with a number of lancets acted upon by a spring.

When leeches are employed, they must be previously prepared by drying them, or allowing them to creep over a dry cloth; and the part to attract them should be moistened with cream, sugar, or blood, and they confined on it by applying a wine-glass over them.

When the scarificator is used, so soon as a wound is made, a cup exhausted of its atmospheric air, by burning over it, for a few seconds, a bit of soft paper, dipt in the spirit of wine, and on the flame of which, being nearly exhausted, must instantly be applied over the scarified part; when full, it is easily removed by raising one side of it, to admit the air. When you have taken away, in this manner, a sufficient quantity of blood, the wounds are to be covered with some cream or mild ointment.

In the operation of blood-letting, certain morbid consequences at times arise, which demand a special treatment.

The most common of these, are a swelling of the part, termed *eccymosis*, and when it occurs, shifting the position of the arm, so as to induce a free discharge, will lessen the tumor, if not entirely remove it. Should this fail, compresses, dipt in the solution of sal-ammoniac or brandy, are to be applied. These also failing, and the swelling still continuing, without any diminution, the tumor must be opened, and after removing the coagulated blood, the sore is to be treated as a common wound. This result, however, very rarely occurs.

Another consequence which sometimes follows blood-letting, is an acute pain, immediately felt on the introduction of the lancet, and communicated from the part to the extremity of the member. The treatment of this complaint consists in the early use of cloths, wrung out of lead-water, applied to the part, and adopting, in every respect, the antiphlogistic plan, as blood-letting, cooling cathartics, and a low diet, to obviate inflammation.

This treatment not succeeding, laudanum must be given in large doses, which, also failing, a free division of the nerve or tendon, which was pricked with the lancet, is the only remedy left.

The last accident required to be noticed, is the wounding of an artery, which is known immediately after the operation, by strong compression of the vein, above and below the orifice, by the tremulous motion in which the blood flows, and by not being able to stop the discharge as usual. The cure of this affection may be attempted in the early stage by compressing, and observing the antiphlogistic regimen. On their failing, the tumor must be extirpated, and then the ends of the vessel secured by means of a ligature, until a reunion of the parts is affected, when the circulation is made to pursue a different channel.

ISSUES.

These are a kind of artificial ulcers, formed in different parts of the body, for the purpose of procuring a discharge of purulent matter, which is frequently of advantage in various disorders. Practitioners were formerly of opinion that issues served as drains, to carry off noxious humors from the blood; and, therefore, they placed them as near the affected part as possible. But as it is known that they prove useful, partly by the quantity of matter which they produce, and partly by sympathy, they are generally placed where they will occasion the least inconvenience. The most proper parts for them are, the nape of the neck; the middle, outer, and fore-parts of the shoulder; the hollow above the inner side of the knee; or either side of the backbone; or between two of the ribs; or wherever there is a sufficiency of cellular substance for the protection of the parts beneath. They ought never to be placed over the belly of a muscle; nor over a tendon or thinly covered bone; nor near any large blood-vessel. The issues commonly used, are the blister-issue, the pea-issue, and the seton or cord.

When a blister-issue is to be used, after the blister is removed, a discharge of matter may be kept up by dressing the part daily, with an ointment mixed with a little of the powder of cantharides, or Spanish flies. If the discharge be too little, more of the powder may be used; if too great, or if the part be much inflamed, the issue-ointment may be laid aside, and the part dressed with basilicon, or with common cerate, till the discharge be diminished, and the inflammation abated.

It is sometimes most proper to use the issue-ointment, and a mild one alternately.

A pea-issue is formed either by making an incision with a lancet, or by caustic, large enough to admit one or more peas; though, sometimes, instead of peas, kidney-beans, gentian-root, or orange-peal, are used. When the opening is made by an incision, the skin should be pinched up and cut through, of a size sufficient to receive the substance to be put into it. But when it is to be done by caustic, the common caustic, or lapis infernalis of the shops, answers best. It ought to be reduced to a paste with a little water or soft soap, to prevent it from spreading; and an adhesive plaster, with a small hole cut in the centre of it, should be previously placed, and the caustic paste spread upon the hole. Over the hole, an adhesive plaster should be placed, to prevent any caustic from escaping. In ten or twelve hours the whole may be removed, and in three or four days the eschar will separate, when the opening may be filled with peas, or any of the other substances above mentioned.

The seton is used when a large quantity of matter is wanted, and especially from deep seated parts. It is frequently used in the back of the neck, for diseases of the head or eyes, or between two of the ribs, in affections of the breast.

When the cord, which ought to be made of threads of cotton or silk, is to be introduced, the parts at which it is to enter and pass out, should be previously marked with ink, and a small part of the cord being besmeared with some mild ointment, and passed through the eye of the seton-needle, the part is to be supported by an assistant, and the needle passed fairly through, leaving a few inches of the cord hanging out. The needle is then to be removed, and the part dressed. By this method, matter is produced in quantity proportioned to the degree of irritation applied; and this can be increased or diminished, by covering the cord daily, before it is drawn, with an irritating or mild ointment.

MALIGNANT FEVER.

*In the year 1823, while the Epidemic Malignant Fever, sometimes denominated the COLD PLAGUE, was raging in the Western and Southern country, and when physicians were unsuccessful in its treatment, and divided about its nature and origin, the author received the following letter† from sundry respectable gentlemen, citizens of Louisiana, asking information from him, as to the management of a disease, which had

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*This article, the author wished to place under the head of Fevers: but as it could not be conveniently prepared till the former portion of the volume was in type, and as the author has not aimed at a strict nosological arrangement, he thought it as well to introduce it at the end of diseases generally.

FELICIANA PARISH, LOUISIANA,
†DR. JAMES EWELL, *September 24th*, 1823.

Dear Sir:—We have perused your Medical Companion, with pleasurable and profitable attention, and though professedly ignorant of the science of Medicine, we deem that work a valuable addition to the libraries, and eminently deserving the grateful acknowledgements of your fellow citizens, in consequence of its peculiar excellence and utility. That portion of it dedicated to Materia Medica, the Dispensatory, and a table of Medicine, entitles the author to the gratitude and respect of many families. From observation, we have found that those physicians are the most successful in their practice who have followed the directions which you have offered to the public.

Entertaining an exalted opinion of your professional talents, we have concurred in addressing this epistle to you, in the confident expectation, that your popular benevolence will prompt you to favour us with your valued advice on a disease, generally acknowledged mortiferous in this section of the union, which of all others has most severely suffered from annual epidemic distempers, mostly of a febrile description.

The *Cold Plague* is the ordinary denomination of the formidable malady to which we allude, and for which, no adequate remedy has, as yet, been discovered.

To afford you some idea of its prevalence and malignity, we state the fact, that, in the space of ten days, our neighbour, Mr. Waddle, lost six of his household who were attacked by this disease; that he himself is now its victim, and is hurrying to the threshold of eternity, while his sister is, at the same time, confined to her bed, with all the symptoms of the same complaint; and this, sir, is but one instance of many thousands of the fatality of that disease, which annually desolates Louisiana and the bordering state of Mississippi.

proved so fatal in their neighborhood. The author, having no personal knowledge of the disorder, being far removed from the scene of its devastation, and having no sources for information, on which he could rely, was constrained to decline giving the advice requested. He has since met with the elaborate and satisfactory Essays on the subject, written by Samuel A. Cartwright, M. D. of Natchez, Mississippi, and published in the Medical Recorder, Vol. IX, year 1826. From those Essays he has made copious extracts, which he presents to his very polite correspondents of Feliciana, and to the public, in general, as the best treatise on the cause, symptoms, and cure of malignant fevers, that has ever been published, and indeed the best which could be gathered from the whole stock of information on the subject, now possessed by the profession. The thanks of the Medical Profes-

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That distance precludes you from personal contemplation of the symptoms of the Cold Plague, is seriously lamented by us, as it subjects you to disadvantage in prescribing, and us to less certain benefit from your medical knowledge. We will, however, attempt to describe it. One of the undersigned was seized with the Cold Plague, about the conclusion of August, 1821.

Symptoms. Pain in the stomach extremely violent; a vibrating coldness; a fever, during which a profuse perspiration took place, of twenty-four hours continuance. Will it be credited, that while it was obvious to the physicians, that the patient was in a high fever, the latter felt a death-like coldness, in all parts of his body, except the region of the heart! He was continually thirsty; and, for three days and nights, complained of extreme pain in the stomach.

We earnestly request you, Sir, to give your opinion relative to the best method of treating this enemy of Louisiana.

Address to Mr. William George Dixon, St. Francisville, Feliciana Parish, Louisiana.

(Signed.)

Angus Umphraville,
Benj. O Williams,
Robert Dyer,
David Pipes, Sen. } Esq's.
Jesse Knighten, *Merchant.*
N. M. K. Reid, *U. S. Surveyor.*
Wm. G. Dixon,
Wm. Campbell,
John Rowley,
Stephen Shelton,
R. Chance, } *Planters.*

A. W. Draughan,
Francis Brian,
Eli Rentz,
Joseph Drawdy,
H. R. Harrell,
Joseph Vick,
Micajah Courtney. } *Students.*
Robt Neyland,
M. Dikson,

sion, and of the public, are due to Dr. Cartwright for his zeal and industry in investigating this subject, and for the ability with which he has communicated the results of his labors.

SYMPTOMS. The disease was marked by three distinct stages, each of which had its peculiar symptoms. As it might, in its first and second stages, have been mistaken for *some other* malady, I will only describe the last stage, which presented features altogether peculiar, and could be confounded with no other disease whatever. In the last stage, there was apparently no fever, and little or no pain. The patient often regained his strength so far as to be able, in the most of cases, to walk about his room. His eyes were of a yellowish red, sparkling appearance, and lent to a countenance, otherwise of apathy, a strange expression of wildness and horror. Black dissolved blood oozed from the mouth, the gums, and the nose; coffee ground vomit, or a dark brown flaky matter, with but little effort, was thrown from the stomach; anxiety, restlessness, and great flatulency of the stomach, portended and accompanied its discharge, spasms seized the muscles; the breathing became heavy, slow, and irregular—attended often by a hoarse, deep, sullen sound. The speech became incoherent; yet, when the patient was spoken to, he appeared to be able to collect himself so far as to answer questions rationally, and although sensible of his situation, seemed resigned to his fate. These were the symptoms that characterized the third or last stage of the disease. Although all of them did not invariably occur in every patient, yet a sufficient number were generally present to point out the character of the disease to the medical attendant the moment he entered the sick room.

The first stage consisted in a *broken* or irregular *re-action;* and the second, or milder stage, in a *general* excitement diffused throughout the system. The duration of the first stage was generally from one to twenty-four hours; and that of the second stage, from one to forty-eight hours. The first stage could readily be distinguished from the second period, by the partial evolution of heat in the one, and the uniformly hot surface of the other. The patient was found covered up with bed-clothes in the first stage, but in the second and third, he greatly preferred lying entirely naked.

In a great many cases, the worst cases too, the state of the system which constitutes the second stage, never occurred; but the disease passed immediately from the first to the last stage, without going through the second stage of re-action.—These were called the cold cases of yellow fever, or yellow fever without re-action.

The approach of the first stage of the disease was announced by an intoxicated appearance, and a remarkable exhileration or depression of spirits, and was soon ushered in by a cotemporaneous sensation of heat and cold. The patient, although complaining of great internal heat, was often found under one or more blankets, which he would not permit to be removed. His skin, which to him, felt excessively hot, was often actually cold to the touch. Yawning, stretching, soreness of the flesh, achings of the bones, and at length, flatulency of the stomach, with great weight and oppression about the præcordia, took place, followed by pain in the head, stomach, and back.

The pain, in this stage, was never so severe as in that of general re-action. Indeed, it was sometimes entirely absent. It was remarked by a very intelligent and accurate observer of the disease, Dr. Gustine, that the most fatal cases were those which were attended with the least pain.

A want of thirst also attended the disease in its first stage. The tongue was then seldom much furred; its edges were often red; sometimes, it presented no unusual appearance in the most malignant cases. The patient, in this and the second stage, was as anxious about living, as he was indifferent and careless of life in the last stage.

TREATMENT. Experience has long since proved that the same remedies produce very different effects in different diseases, and in different stages of the same disease. Stimulants, emetics, cathartics, &c. are only relative terms; for, in many conditions of the system, stimulants impart no strength, tartar emetic will not puke, nor will calomel purge or salivate. I shall first point out the *state* of the system in which they were used, the *effect* they produced, and the *manner* in which they *influenced* the disease. In all important cases, I was in the habit of noting the state of the system when a remedy was given, and on my next visit, noting also the changes produced in the disease. When a remedy, in any particular state of the system, was found to be pernicious or useless, it was not concluded to be pernicious or useless in all states of the system, but only under those particular circumstances in which it had been proved to be so. When the disease terminated fatally, I looked back on the situation of the patient when the remedies had been used, their effects on the disease, and immediately proceeded to make *post mortem* examinations, and to note down every morbid appearance. Having the charge of Natchez hospital, from the 6th of September, until the epidemic terminated in November, I had an excellent field for observation. Patients of every description were admitted, and in every stage of the disease. Some who had been under the treatment of other physicians, and others who had taken no medicine. This hospital, with my private practice in the city, in which I resided during the epidemic, and the experience of the disease in my own person, in the present, and also in a former epidemic, are the sources from which the following observations have been drawn. I have seen patients recover from yellow fever under very different, and apparently, opposite modes of treatment. The narrow views which are too often formed of the action of medicines, and of the laws which regulate the system, aided by the dogmas of the schools, have, until within a few years past, shackled the science of medicine, and hindered its progress. Facts are yet too often overlooked or disregarded, when they do not support some slender-built theory, or favorite hypothesis.

In the first stage of yellow fever, or in that which consists of an ataxic or crippled re-action, when the blood is unequally determined, the heat unequally diffused, sensation impaired, and secretion suspended, I found no other remedy, or combination of remedies, which produced such decided effects, as tartar emetic, in full doses. It, however, seemed sometimes inadequate to make a sufficient impression on the torpid system. When given in this stage of the disease, its effects were not *so soon* apparent, as in the healthy state of the system, or in less violent diseases. Very often, it would be an *hour* or *more*, after a full dose had been taken, before the system appeared to feel it. At length, that peculiar sensation of heat and cold, at the same time, would somewhat yield to a sensation of heat only; the temperature of the skin would become more uniform, and as the excitement was brought out, great distress would ensue, and the system appeared to arouse from its torpor, and to regain, in some measure, its organic sensibility. Some one or more of the great organs of secretion now took on a secretory action. The nausea, the retching and anxiety, soon gave way to full vomiting, first of phlegm, and then of bile. This, to a spectator, was an alarming period in the disease, and most distressing to the patient. The powers of life would sometimes appear as if they were about to give way under it, but happily it was only in appearance. The vomiting at length subsided, and the patient enjoyed a little respite from his sufferings, and bathed in a perspiration, he would fall into a slumber of short duration, for these were only the first effects which tartar emetic produced on the system. Soon re-action took place, and the disease passed into the second stage; but the re-action was general, and lost its ataxic or broken character; it was accompanied with a hot skin, violent pain, and a full, strong, tense pulse. The patient would now complain of excessive misery. I delighted to see the disease come out thus openly, and show itself by fever and pain; for, although the patient might fancy himself worse, yet he was far removed from the danger which attended on the ataxic fever from which his system had just emerged, and only required a bold use of the lancet, and other remedies hereafter to be mentioned, to restore him to health. But it was not always that tartar emetic, when given in the first stage, would produce vomiting. In those cases in the first stage, in which the skin was cold, and even when the re-action was ataxic and scarcely perceptible, the organs as if palsied, secretion entirely suspended or strangely vitiated, the stomach irritable, and little or no pain complained of, tartar emetic, in full doses, might be given without producing vomiting. Strange as it may appear, tartar emetic, in such cases, was a most powerful stimulus; it brought out the excitement, heated the skin, raised the pulse, allayed the irritability of the stomach, restored sensibility to the organs, and finally awakened one or more of them, the kidneys, skin, &c. to active secretion. To have this effect, it should be given in doses of from three to ten grains every one, two, or three hours, dissolved in a small quantity of water, or what is better, as I have since learned, in similar states of the system, in pills. When secretion has been brought about by the remedy used in this way, and the excitement developed, it should not, at once, but gradually, be discontinued, by giving smaller portions at longer intervals. Should a vomiting ensue before the skin has its heat and sensibility somewhat restored, bile will rarely be evacuated; in this event, another dose of the medicine should be immediately given, and repeated whenever great nausea ensues. I have rarely seen this practice fail, in such states of the system, to check the vomiting and heat the skin, when mustard and blisters had failed. It will be remembered, that those which are denominated cold cases, are the most hopeless. I have used the hot bath, frictions, sinapisms. blisters, besides various internal stimulants to bring on re-action: but the combined influence of all these remedies has never had the same beneficial effect as tartar emetic alone.— But in some cases of this kind, particularly in hard drinkers, it fails to produce secretion, and to develope excitement. It may be imagined by men in their closets, that these are cases of congestion only, which congestion could readily be removed by small and repeated bleedings combined with internal and external stimulants. If the malignant nature of these cases depend entirely on congestion, it is a very different congestion from that which takes place in many other diseases. In the latter, I have often succeeded in removing the congestion, by blood-letting, combined with internal and external stimulants; but in the cold cases of yellow fever, *never*. In such cases, if blood be taken away, even should the patient not immediately sink under it, so far from re-action being produced, the blood-vessels lose more and more of their contractile power; stimulants impart no strength; the warm bath and rubefacients produce no more effect on the skin than if applied to so much leather; the organs become more paralyzed; the sympathies more deranged; and the whole system soon appears as if it were divided into different parts, one not depending on another, and each having the principle of life diminished in it. Instead, then, of using blood-letting in such cases, to remove congestion, I used tartar emetic to produce secretion, and to develope the excitement. Although tartar emetic was sometimes inadequate to produce these desirable effects in the cold cases, it scarcely ever failed to be eminently serviceable in the first stage of cases of a less malignant nature. The earlier it was given in the first stage of the disease, the better. When given freely, so as to produce secretion in the liver, kidneys, and skin, a general and equable re-action soon succeeded. It shortened the duration of the first stage, or that of ataxic re-action, and thereby converted a highly *malignant* into a *mild* case of yellow fever.— For, in the mild cases, when left to nature, the first stage continues but a short time, and the disease soon passes into the second, or that of general re-action. These are the cases which bear bleeding and purging so well, and in which emetics are of no service, (unless given before the general re-action has taken place.) The good effects of emetics appear to depend on their ultimately producing a general and equable excitement throughout the system. In the more malignant forms of yellow fever, the stage of ataxic re-action, when left to nature, continues a longer time; and should the second stage, or stage of general excitement ever occur, its duration is so limited, that a sufficient time is not given to subdue the disease, before it passes into the third and last stage. Tartar emetic, then, given in the first stage, shortens its duration, and places the system in a similar state to what we find it in the milder forms of the disease. And in proportion as the ataxic stage is shortened, so is the stage of general excitement prolonged, and the chances of the patient's recovery greatly increased.

On looking over my notes, I perceived, that when it had been given in the first stage, such patients not only bore bleeding better, and could be purged more easily, than those to whom it had not been given; but whether they lived or died, the symptoms of the second stage, or that of re-action, continued longer than when tartar emetic had been omitted.—For in those cases in which it had not been given, should the stage of re-action ever occur, it continued but a short time, frequently not more than an hour, then external re-action, like the blaze of recently ignited coals, would subside, not from the fire having been extinguished, but from the heat which supported it having become greater. My notes likewise showed me, that tartar emetic, however well adapted to some states of the system, was not so to every one in yellow fever. For when it had been given in the stage of general re-action, its effects were extremely equivocal, and, in some cases, injurious; and in the third stage, it appeared to accelerate the fatal black vomiting. I thus found that I had pushed a favorite remedy too far, by using it improperly; and, at the same time, learned the particular states of the system to which it was peculiarly adapted, viz: during the first stage of the disease, antecedently to the developement of a general re-action. Tartar emetic used in this stage, restored sensibility to the torpid organs, produced secretion, and destroyed the ataxic character of the disease, by establishing a general and equable excitement; or, in other words, converted an irregular and intractable condition of the system, into an open, plain, and manageable case of fever. When I first treated yellow fever, in its first stage, by tartar emetic, and witnessed the violent re-action that shortly succeeded its use, and heard the agonizing shrieks of my patients, from the pain that attended the increased sensibility and universal excitement t at succeeded it, for a moment, I thought I had done wrong, and would have ceased to use it, had I not found that this was the only state of the system in which the lancet could fearlessly and successfully be used. Even when the lancet was not used, the general re-action induced by tartar emetic, was nothing like so fatal, as when an ataxic state cloak the violence of the disease. To illustrate this remark, Dr. McPheeters, lately from Missouri, was taken ill at the most perilous and alarming period of the epidemic. He found himself alone, and rendered helpless, by a violent disease that killed generally in three days. Being a man of great strength and energy of mind, he resolved to make use of efficient measures, and accordingly mixed up sixty grains of tartar emetic, and took a sixth part of it at once. It produced copious secretion, and was soon followed by a vehement excitement of the whole system.—Having no means to subdue the re-action thus brought about, it run its course. But every part being excited, the system was enabled to bear up against a power that otherwise would have caused it to succumb. Nine or ten days afterwards, I visited him. Re-action had nearly run itself down. He looked more like a patient in the advanced stage of a common synocha, than one in the yellow fever. Had not the ataxic re-action, with which the disease commenced, have been removed, he would not, most probably, have survived.

Blood-letting. If blood-letting were resorted to before the developement of general re-action, the re-action, which had yet only partially developed itself, abated; the heat which had begun to spread itself over the surface, disappeared; and the pain would subside; and this, too, before the quantity of blood taken away was, in any degree, considerable. Medicines did not operate, and the disease at once passed into the last stage. During the ataxic re-action, in vain may we be told, to bleed to the relief of the symptoms; for they grow worse while the blood is flowing, and continue to become more alarming. and that in proportion to the quantity of blood taken away.

When a feeble and broken re-action has taken place, to attack it by the lancet, is like attacking the first phalanx of an enemy. when he attempts to come out of his entrenchments, instead of waiting until the main body has appeared in the open field. But in the second stage, in which the heat of the whole surface is excessively increased, the pulse full and strong, the patient lying naked, and calling on the attendants to fan him, and to give him cold water, we may bleed *fearlessly* and successfully. The effects produced on the system by blood-letting in the re-acting, so far from hastening the disease into the last stage, and bringing on fatal symptoms, prevented it from passing into that state. and robbed it of all its violence and danger. I will now give a case in which blood-letting was followed by alarming consequences, from its being used a little too soon in the disease, *i. e.* before the second or re-acting stage had fully developed itself, yet so near the stage of general re-action, as to prevent blood-letting from proving fatal. Mr. McCauley. a Printer, was attacked with yellow fever, on the 20th of August. The disease appeared at once to overpower the system. It seemed as if the viscera had absorbed nearly the whole of the circulating fluids, as the skin was cold and almost insensible; the pulse small slow, and weak, and no secretion appeared to be taking place from any organ whatever. He complained of no pain, yet was restless and uneasy, and seemed to be oppressed in his breathing, as if a heavy body were lying across him. In this situation, early in the morning of the 21st, about twelve hours after his attack, a full dose of tartar emetic was given him. In two hours afterwards, he began to complain of pain in his head and back—his skin became somewhat warm, particularly about the head and breast—frequent efforts were now made to vomit, but nothing but the drinks was evacuated—a clammy sweat bedewed his forehead and breast, which soon dried up and again appeared. He continued in this state until noon, when full vomiting took place. At 2 o'clock, the vomiting ceased, and the irritability of the stomach was so much allayed, that it retained several doses of calomel and castor oil, senna, tea, &c., which were given at regular intervals, until seven o'clock; and, although assisted by injections, had not operated. He now complained of excruciating pain. His skin, except his extremities, was hot to the touch; his pulse at the wrist tense, but not full and strong. The ataxic re-action was verging on to general re-action; but the latter had not, as yet, fully developed itself. Hoping that it would be the means of making the medicine operate, I opened a vein in the arm—as I never feared blood-letting in such states of the system, as alone, it would either produce secretion, or cause medicines to do it.

Being determined to bleed him until some sensible effect was produced, I took away upwards of sixty ounces of black dissolved blood, before the system seemed to feel its loss. The blood was stopped, in consequence of a slight sickness at the stomach. The patient answered several questions after I had tied up his arm. I went into an adjoining room, and, in about five minutes, was told the patient was dying. I took hold of his arm, but found no pulse. His face was sprinkled with water, washed with vinegar, and constant frictions applied to the skin during fifteen minutes, yet without effect.—Some laudanum was now procured, and one hundred and twenty drops poured down his throat. After waiting fifteen minutes longer, for a boy to return from the apothecaries, half an ounce of spirit of hartshorn was given, which he seemed not to feel. A stimulating injection was administered; his face was washed with the aqua ammonia, and the frictions were kept up. All of his attendants, excepting one, left him, and reported him dead. I thought, myself, that animation had been suspended too long, in his present condition, to be restored. After remaining in this situation for near an hour, signs of life again appeared. After several sighs, respiration took place, and a tremulous pulse was felt. But from the slightest exertion on the part of the patient, syncope would again ensue, and continue for several minutes. I ordered the spirits of turpentine to be freely given, stimulating injections to be used, and sinapisms to be applied to the extremities.

On the morning of the 22d, I found that no perceptible secretion had taken place—he had neither sweated, urinated, or had an evacuation from his bowels. Suspecting that there might be a want of power in the bladder to evacuate the urine, I examined, but found no urine in the bladder. I continued to give the turpentine, in drachm doses, every hour through the day. His bowels, on the evening of the 22d, acted; and, shortly afterwards, he discharged a little very turbid urine. On the morning of the 23d, the great organs of secretion were all awakened, and the patient, though much exhausted, was, in a few days, restored to perfect health. Had the re-action in this case been general, and not of the ataxic kind, I judge from what I have seen in other cases, that no alarming effects would have followed the use of the lancet; but had not the ataxic approached so nearly to general re-action, I am fully persuaded that the patient would not have borne half the quantity of blood to have been taken away, without producing death. I have dwelt the longer on this case, as the length of time which elapsed before the emetic operated, the changes that took place in the system in consequence of it, the great quantity of blood that was taken away before the system felt its loss, the alarming effects that followed it, and the length of time before the torpid organs assumed a secretory action, are well calculated to show the character of the most malignant form of yellow fever, and the manner in which they are influenced by remedial agents. I will now give one case, out of many, to show the effects of blood-letting after the excitement is fully evolved. Mr. Welch, a baker, was attacked with yellow fever on the 15th of September. On my visiting him, on the morning of the 16th, I found him wrapped in several blankets, and complaining both of heat and cold. I ordered five grains of tartar emetic every hour, till he puked copiously. In the evening, I found him lying naked on the floor, as the bed was too warm; he was raving like a madman from the excruciating pain in his head and back; he begged the attendants to kill him at once, and put him out of his misery. His pulse was full and strong, and the whole surface of the body remarkably hot.—I took away, at one bleeding, six pints of blood, before the symptoms were relieved. He continued very sick at his stomach only for half an hour, but did not faint. Calomel and castor oil, then given, operated freely on his bowels in six hours afterwards, and he speedily recovered.

In my own case, I lost four pounds of blood at one time.—It was taken away before general re-action had as fully developed itself as I could have wished. A most distressing feeling of exhaustion ensued, and continued for an hour or two. No healthy secretion took place for twenty-four hours afterwards, at the end of which time, by a judicious course of treatment pursued by my physician, and friend, Dr. Denny, the skin, the liver, the kidneys, and salivary glands, all took on a secretory action; and in less than a week from my attack, I was able to leave my room; and in two or three days more, I resumed my practice. It was not until I had seen some of the most injurious effects from the loss of the smallest quantity of blood in the ataxic stage of the yellow fever, that I could be convinced of the propriety of waiting until the excitement had fully developed itself, before recourse should be had to the lancet.

Purgatives. If purgatives were given immediately on the accession of the first stage, they sometimes produced secretion, which was followed by a re-action more or less general. But it was only in the milder forms of the disease, in which the organic sensibility was not greatly impaired by the first shock of the disease, that purgatives produced secretion. Drastic purgatives, in almost any state of the system, would, after so long a time, force away watery stools, which, like similar secretions in cholera morbus, soon exhausted the system, without producing any beneficial effects whatever, either immediately or remotely.

When the system was placed in a proper state for the exhibition of purgatives, those of the milder class would be followed by bilious discharges, which were beneficial; but when it was not in this state, drastic purgatives would produce serous mucus, or sanguineoserous discharges, which were extremely injurious. As the milder cathartics were found to have all the *good* of the drastic, and none of their *evil* effects, I preferred mild to drastic purgatives. Late in the epidemic, I obtained some of the croton oil. From the trials I gave it, I am induced to believe that it will be found to be a valuable remedy in many cases of yellow fever. Every time it was used, copious bilious dejections ensued. It was, however, only resorted to in those states of the system in which I would have used other purgatives. As this medicine is so pleasant to take, and can be retained on the stomach in cases in which almost any other purgative would be rejected, it promises to be of great utility in many forms of disease.

Mercury. Given in the first stage of the disease, mercurial preparations in, by far, the majority of cases, produced no evident effect on the system, and, consequently, none on the disease. Sometimes, however, even in this stage, they produced ptyalism, yet such ptyalism had little or no effect in arresting its progress.

There is a state of the system which, however, occurs more often in bilious than in yellow fever, in which I have found the specific effects of mercury to be particularly serviceable. After re-action is subsided, after the skin, kidneys, and liver have been excited into a secretory action—owing to some organ having, from some cause or other, sustained a great shock, a torpor will again take place in one or more of these organs, that produces great irritation in the system, preventing sleep, destroying the appetite, producing fever, and thereby exhausting, more and more, the already too much exhausted patient. If the torpid organ be excited into action by any other remedy but mercury, as soon as it ceases to feel the impression of the remedy, it ceases to secrete; here, mercury, by keeping up an impression not *transient*, as the most of other medicines, but permanent, will, by enabling the diseased organ to regain its powers, restore the patient to health. In the above state of the system, and in many others in which the specific effects of mercury are indicated. I had been taught to use calomel in small and frequently repeated doses; but experience has convinced me, that there is scarcely any state of the system, requiring the specific action of mercury, in which calomel, in large doses, is not the best means to effect it. Scruple doses of this medicine will not only induce the specific effects of mercury sooner, but will be followed by fewer disappointments, and less inconvenience and danger, than when smaller doses of that medicine, or any other form of mercury, have been resorted to.

DIURETICS. As a copious secretion of urine was a favorable symptom, and a suppression of it alarming and often fatal, diuretics were remedies, in many cases, of great importance. When purgatives would not produce a secretion of bile, instead of trying by reiterated doses of these medicines, more especially of a drastic nature, to force away alvine discharges, which, in such circumstances, would generally be of a serous kind, that tended only to weaken the patient, I endeavoured to excite the kidneys to secretion by diuretics.

I have often had the pleasure to find that the *urinary* secretion produced by them, was of equal advantage in arresting the progress of the disease, as the *biliary*, by purgatives. Soon after the secretion of urine was established, the skin and liver would both generally begin to yield their peculiar secretions, and the disease would no longer be able to resist the efforts of these allied organs.

Diaphoretics. When neither the liver nor kidneys could be excited into action, diaphoretics were sometimes serviceable. But the great irritability of the stomach, the distaste to all medicines, the want of nurses, and the rapid march of most cases, prevented me from encumbering my practice by such feeble medicines, in the treatment of a disease, which seemed to require only a few simple, efficient, and well-timed medicines.

Epispastics. In every stage of the disease, I have used blisters, applied to the head, over the stomach and bowels, to the extremities and down the spine. The benefit, however, which I had reason to expect, from my experience with them, in bilious fevers and other diseases, never followed their use. Sinapisms to the extremities, to assist tartar emetic and the hot bath, to produce re-action in the cold cases; or after re-action had been reduced, to stimulate the prostrated patient, were far more serviceable than blisters. The former acted much more quietly, and produced greater pain than the latter.

Stimulants. How the bark and wine in large doses would have answered in the first stage of this disease, to change the ataxic re-action of that stage into a general re-action, I cannot from experience determine.

The Spanish practice in the Andalusian fever, consisted in large and repeated doses of bark, given immediately when the patient began to complain. This practice, we are told by Dr. Johnson, was attended with extraordinary success. I very much suspect that the good effects of bark, in that fever, principally depended on its transforming the broken excitement, with which the disease commenced, to a general re-action, or open case of fever. I lost one patient who drank a large draught of ardent spirits, with pepper in it, immediately after the attack.

The fever became developed, but great gastric distress attended throughout its course. Antopsic appearances proved the existence of unusually high inflammation in the stomach.

Of the Bath. The cold bath, if used in that state of the system, which I have called ataxic re-action, was evidently injurious. I cannot better describe its effects, than by the following case. Mrs. Rice, in the first stage, used ablutions of cold water and vinegar. The efforts made by the system, towards general re-action, became immediately subdued; and to use her own language, "the cold water drove the fever in upon her heart and stomach." Great coldness and shivering, with internal heat and oppression, succeeded its use. Re-action never took place, and the disease passed at once into the last stage; and when I was called to see her, fatal symptoms had appeared. Had an emetic, instead of the cold ablutions, been tried, it is probable that re-action would have been general; would have borne blood-letting, and have been attended with a different result. The only condition of the system, in which cold ablutions or affusions were advantageous, was when the surface was uniformly and preternaturally hot. In this epidemic I never found any difficulty in reducing the re-action by the lancet and other remedies, consequently, I seldom ever found it necessary to call in the aid of cold affusions.

In the yellow fever under review, when re-action was reduced, or on the wane, if secretion did not take place, the *tepid* bath, apparently by removing the remains of morbid heat, and by restoring the natural sensibility of the skin, enabled that important organ to take on a proper secretory action. But cold water, by carrying off too much heat, reduced the temperature of the skin below that degree which is compatible with natural sensibility; and, consequently, with healthy secretions. Pleased with the effect of the *tepid* bath, after the use of the lancet in the re-acting stage of the disease, I resorted to the same remedy in the ataxic stage. The temperature of the bath was 96 deg. The patient, as soon as immersed, complained of being disagreeably cold; he was taken out in a shivering fit, and was shortly afterwards immersed in a bath so hot, as to be extremely painful to my own hands, yet he did not in the least complain of it. His skin soon became generally warm, and an emetic, which he had previously taken, began now to operate. He was removed from the bath, and in a few hours a fever so violent ensued, that copious blood-letting was employed to subdue it. The hot bath, whenever it could be procured, was employed in conjunction with emetics, in the cold cases of yellow fever, in order to bring about a general re action. If emetics were not used in conjunction with the bath, the skin, it is true, would be heated, but its heat, like that of any inanimate substance, would soon subside on being removed into a colder medium.

Dr. Cartwright further states, that he personally witnessed the yellow fever of 1825, in Natchez, "Under the Hill;" in Washington, a village six miles from the river Mississippi; at Haughton's, a tavern in the country; and, lastly, in Natchez, "On the Hill;" and he proceeds to give the following additional facts relative to the causes, nature, and treatment, of the disease, which its occurrence and prevalence in the abovementioned places afforded him an opportunity of observing.

Natchez Landing, (or Under the Hill, as it is called,) consists of a few rows of buildings, situated immediately on the brink of the Mississippi river, at the foot of a bluff about two hundred feet high, which forms the site of the principal part of the city, called, Natchez "On the Hill." Although during *high water*, the buildings under the hill are immediately on the brink of the river, yet when the river falls, as it always does in summer, a surface of ground several rods in width, becomes uncovered between the buildings and the river. The surface thus exposed by the falling of the river, consists of mud recently deposited, and of the debris of various vegetable and animal substances, which, during the season of trade, had been thrown out by the *flat boats* that landed at this place. On the margin of this uncovered surface, there is a warehouse, which, in the months of July and August, 1825, contained a large quantity of spoiled porter and sour pork. The owner of the warehouse was constantly engaged in re-packing the pork; the brine from which, was permitted to run through the floor, into a kind of cellar, which had no outlet to it. Some of the porter barrels burst, and the spoiled porter also, ran through the floor into the cellar, with the brine from the sour pork. Some few hundred yards above the warehouse, there was a boat containing a quantity of rotten corn, which had been sunk in the water, but became exposed in the summer, by the falling of the river; and below the warehouse, but not so far from it, there were two or three houses that contained stagnant water, others, putrid sour krout, fish, oysters, &c. in their cellars.

Leaving Natchez for the present, I proceed to Washington, to give a brief sketch of its topography, and an account of the epidemic yellow fever, which prevailed there in the autumn of 1825.

Washington, a small village, containing about four hundred inhabitants, is situated six miles east of Natchez, and not less than the same distance from the nearest point of the Mississippi river. The town occupies a high and healthy situation, remote from any *swampy ground*, or from any *water course* whatever, except a small stream of running water, a branch of the St. Catharine's, about a quarter of a mile northeast of it. The citizens of Natchez, prior to 1825, always found Washington to be a place to which they could retreat with safety, from the ravages of the malignant fever. The inhabitants of that town had hitherto opened their doors to the sick and the dying, and received no harm, as *not a case* of yellow fever ever occurred among those who had not breathed the Natchez atmosphere.

A grocer, who had been living 'Under the Hill,' removed his grocery store to Washington in the latter part of the summer. He rented an old wooden house on the north side of main street, which, with the lot attached to it, is situated in the hollow space of ground described above. The earth had been thrown up around the palings of the lot, except at one place, to serve as a drain in rainy weather. This drain was choked up with weeds and trash when I examined it, during the progress of the epidemic about to be described, and served but imperfectly, the purpose for which it was intended. The grocer, who removed his store to the house on this lot, removed also a quantity of bacon and mackerel, a great part of which had begun to putrefy at the time of its removal, or putrefied soon afterwards. These provisions the grocer was in the habit of selling to negroes. Mr. Alfred Radcliff informed me, that a few days before the yellow fever originated in Washington, he called on the grocer, in order to purchase some bacon, for a friend in the country, but on examining it carefully, the *whole quantity* which the grocer had on hand, was found to be in a putressent state, and none of it fit to purchase. About two thousand pounds of bacon, he stated, was filled with large worms, and was in a putrid condition.

The Rev. Mr. Burruss informed me, that in addition to the putridity within the house, the grocer was in the habit of receiving from the fishermen on the Mississippi river, supplies of fresh cat-fish, (a fish in this river weighing from ten to one-hundred pounds,) the heads and entrails of which, besides what rotted on his hands, were thrown into the back yard of the lot above described. All I personally know with respect to the real situation of the grocery, is what every person knows, who either lived near, or came in its vicinity, that the stench from it was extremely disagreeable. The principal stores and boarding-houses in town, were situated a short distance from the grocery, both above and below it. Both of the town markets were within twenty-five steps of it. Should it then be a matter of wonder, if a few persons living in the suburbs of Washington, in the most healthy situations, should have been attacked with yellow fever, a little *after* the time it broke out *around* the grocery, when it is recollected that those who visited the stores, the taverns, and the markets, were exposed to the same atmosphere with those residing in the vicinity of the grocery.

The yellow fever of Washington, like that of Natchez, in 1823, had three stages. The first stage was generally preceded by, and attended with, catarrhal symptoms. It was known by the patient's sensations being no true evidence of the actual coldness or heat of his surface; by the heat of the surface being unequally diffused, the head and breast hot, the extremities often cold; by the patient preferring to be wrapped up in blankets, although at the time, his skin may have been pungently hot to the touch, by the chilly feeling being greatly increased, if the patient merely reached out his arm to have his pulse felt, or if any of the bed clothes were removed, although he might have complained of these making him disagreeably hot, by a copious perspiration occasionally taking place, and drying up without relieving the disagreeable chilly feeling, abating the pungent heat of the skin, equalizing its evolution, or establishing the lost relation between the patient's feeling of heat, and the real heat of his body. So different were the sensibilities, both organic and animal, in this fever, from a healthy condition of the system, that I have known patients to complain of their extremities being cold as ice, when they were actually burning hot. I was forcibly impressed with this fact, on seeing patients bear to their extremities, particularly their feet, applications sufficiently hot to corrode or blister the skin, and produce great pain, were not the organic and animal sensibility of the part very different from health. I recollect of having affronted one person, from having him put in a tub of water, disagreeably hot to my hands, not because he found it too hot, but too cold. The second stage was known by the patient losing all his chilly feelings; by his throwing off the bed clothes, calling for cold drinks, being tortured with the severest pain in his head and back, tossing himself from side to side in his bed, or going from one bed to another, by his uniformly hot surface, by a diminution in the secretory process, to wit: a paucity of bile and urine, great dryness and heat of the skin, and mucus membranes, and lastly, by an increased energy of the whole arterial system. The third stage was pointed out, by the heat of the surface having diminished, but not the patient's sensation of heat having *proportionally* diminished, by a slow irregular respiration, or even when the number of respirations, differed but little from the healthy state; by the yellow skin, accession of strength, the black vomit, and hemorrhages from the mouth and nose.

The first stage, in some cases, quickly passed into the second, in others, it continued twenty-four, or even forty-eight hours, before the re-acting stage ensued. This stage, in some never occurred, the disease passing at once from the first to the last stage, while in others badly managed, it lost many of its characteristic features, viz: there would be great heat, thirst, and pain, yet a quick irritable pulse, which would not bear the lancet; a comatose state of the brain, similiar to typhus fever, accompanied with extreme irritability of the stomach, and a strong disposition in the bowels to take on a watery purging. Such cases were very fatal. The disease, not only in Washington, but in Natchez, the present season, differed from that of the latter place in 1823, in its very great liability, in many cases, to be attended with copious and vitiated secretions, not only in its first, but in all its stages.

Treatment. As in 1823, during the first stage, or that of ataxic re-action, tartar emetic was found to be the most useful remedy. I generally gave from six to ten grains at a dose, and repeated it in smaller doses, until it either produced bilious emesis, removed the chilly feeling, developed an excitement throughout the system, produced secretion in the skin or kidneys, subdued the ataxic fever, or palsied the deranged organic actions. Vitiated secretions seemed to depend on the *latter*, as, in many cases, the first doses of tartar emetic *put a stop* to the vomiting of a vitiated fluid, which had taken place *before* its exhibition. Tartar emetic, however, used in small and repeated doses, often rendered the stomach more irritable, and even when used in effectual doses, it often did harm, unless properly managed. When the chilly sensation was very great, the warm or hot bath, if used a little before, or at the time, the emetic was given, enabled it to produce bilious secretion, much more readily, and with much less distress to the patient, than when the emetic had been trusted to alone.

CASE. Mr. K. of Natchez, was violently attacked. He told me to give him any thing but tartar emetic, for it always cramped him, produced great coldness, and he had, every time he had taken it, come near losing his life. His life appeared to me to depend on a bold use of the remedy he so much dreaded, as I had no hope of subduing so violent an attack, unless some great change could be produced in his system by the remedy in question. As his kidneys were torpid, I gave him freely of gin sling, had him put into a hot bath, to remove the chilly sensation he complained of, and gave him, while in the bath, ten grains of tartar emetic in half a pint of strong seneka tea. He puked *bile* copiously and easily; and so far from requiring harts-horn, laudanum, &c. to remove the coldness and cramp, as formerly, he soon lost near two pounds of blood, to subdue the consequent arterial re-action. He soon recovered. From Dr. McPheeters, I learned the efficacy of black mustard in vinegar, both as an emetic itself, and as a powerful coadjutor of tartar emetic, in cases wherein the latter alone, from torpor of the stomach or some other cause, failed to awaken the energies of the system. Warm brandy toddy, in some cases, prevented the tartar emetic from producing vitiated secretions, and at the same time enabled it to produce those of a proper kind, or at least enable it to *prepare* the system for *their production*. As cold feet and hands had a great effect in opposing the beneficial action of tartar emetic, warm pediluvia sinapisms, frictions, &c. were found to be necessary to place the system in a proper condition for *its reception*. It was always necessary to subdue by the lancet, general arterial re-action or fever, whenever it came on, as it sometimes did, before bilious vomiting had been produced. If it were a broken re-action or fever, however, tartar emetic was its best febrifuge. Great determination of blood to the head, in the ataxic stage, with a pulse at the wrist, which will not indicate blood-letting, while at the same time there is a very strong pulsation of the carotid arteries, so far from being a state of the system that contra-indicates tartar emetic, is the very state of the system in which I have witnessed more beneficial effects from the remedy in question, than any other whatever. I am not the only one who can bear testimony of the beneficial effects of tartar emetic in such states of the system. Dr. McPheeters has kept a record of a great number of cases of this kind, wherein emetics were found to be no less useful, than the bark in intermittent fevers. If the pulse, at the wrist, and other circumstances, do not forbid blood-letting, this of course should be premised, previously to the exhibition of the emetic, but when this is not the case, the blood-letting should be deferred until after the remedy has produced a change on the deranged organic sensibility of the system, broke up the irregular determinations of blood, and brought out a general re-action of the arterial system.

The worst consequences sometimes occur from a *timid* use of tartar emetic, from giving it in too small doses, repeated at too long intervals, or from discontinuing its use on the first appearance of any unpleasant symptom, at a time when it may be most needed.

Case. Col. Marschalk, a very large, corpulent man, was attacked with the yellow fever of Washington, I gave him an emetic in the ataxic stage of his fever. In a few hours afterwards, I was called in great haste to see him. He was panting for breath, as if in a fit of asthma. No *bilious* vomiting had yet been produced. Great heat, pain, and inward distress, were complained of, I bled him about a pint, as his pulse would bear no more, and gave him three grains of tartar emetic every half hour in spirits æth. nitr. The second or third dose brought on effectual vomiting, attended with no distress, the skin became moist, the difficulty of breathing, internal heat, pain and distress, were removed, and the patient recovered without further difficulty.

But it behoves me to state, that the *worst effects* are sometimes produced by tartar emetic rashly persisted in, without regard to the condition of the patient, in order to bring about some *particular effect* on the system, as, for instance, *bilious vomiting*. But who has not witnessed the worst effects from cathartics, or from mercury, rashly persisted in, without regard to the condition of the patient, in order to bring about some *particular effect* on the system, as for instance, *dark bilious* stools, or a discharge of *saliva?*

By an emetic properly managed, if given early in the disease, not only the fever of Washington, but that of Natchez, was often cut short at once, and the patient recovered without farther trouble, while the mildest attacks, if left to nature, ultimately seldom failed to prove fatal. If the disease did not yield at once to emetics, general arterial re-action ensued in the most of cases, requiring the lancet for its reduction, together with purgative medicines, which brought on bilious evacuations, that soon relieved the patient. Sometimes, however, when emetics had not been used at a period of the disease, sufficiently early, or if used, had not been properly managed, or if properly managed, owing to some peculiarity of the case, had not produced their general beneficial effects on the system, but most generally, when emetics had been entirely omitted, it was difficult to produce, by purgatives, the *proper kind* of evacuations from the bowels—I mean evacuations of a dark bilious matter of tolerable consistency. In such cases, it was very difficult to retain purgative medicines on the stomach, owing to its irritability, and, if retained, even calomel would often produce watery evacuations. In such cases, to continue the use of this or any other purgative remedy, without first *altering* that condition of the system on which the watery evacuations depended, was to continue to use them to the destruction of the patient. In as much as he became speedily exhausted under such evacuations, I made it a rule to check them by an enema, of a tea spoonful of laudanum in a little starch gruel, or by giving opium or its tincture. The next object was to *alter* that morbid condition of the system on which the watery or vitiated secretions depended. Tartar emetic, either with or without the addition of a little opium, in two or three grain doses, every one, two, or three hours, calomel with two or three grains of opium, or with ten or twenty grains of camphor, repeated according to circumstances, and assisted by the warm bath, blistering, &c. were often found useful in *preparing* the system to be properly acted on by purgatives. A remedy, however, which appeared to suit some cases the best, was the sulphate of quinine, or, where the stomach would bear it, the Peruvian bark with cream of tartar and cloves, either of which was given without regard *to fever*, if such fever would not admit of blood-letting. Even when the fever, (I mean heat of skin, &c.) was increased under this practice, the various organs of the system, became more disposed to take on a proper secretory action, than before such fever had been excited. I am confident that I used the sulphate of quinine in too small doses in our late epidemic. Dr. Perrine assured me, that in the bilious fever in the country, ten or fifteen miles from Natchez—to prevent a watery purging, which so often took place in that disease, he resorted, after having premised sufficient blood-letting, to the use of the sulphate of quinine in eight grain doses, every two hours through the day, *notwithstanding the presence of fever*, and at night gave aloes, scammony, and calomel in pills, still continuing the sulphate. He assured me that under this free use of the sulphate, the fever would abate and the cathartic would produce thick, copious evacuations of a dark-color, which would soon relieve the patient; whereas, to use the purgatives without the sulphate of quinine, if they operated at all, they only produced *watery stools*, which soon robbed the patient of his strength, and aggravated his disease. Dr. McPheeters and myself have both used, with a similar intention, the sulphate of quinine, after the plan of that excellent physician, Dr. Perrine, and we have found it even to surpass our expectations. The purgatives which could be the most relied on, in the epidemic of 1825, to produce bilious secretions, were calomel, aloes, and scammony combined, the purified spirits of turpentine, and the croton oil. When there was much pain in the bowels, accompanied with tenesmus, the charcoal was of great service. The best plan of giving medicines in cases of great irritability of the stomach, which neither sulphuric æther, opium, effervescing mixtures, &c. will allay, has heretofore been with me a desideratum in practice. The fate of a patient frequently depends on minutiæ, too often unattended to in practice. It is an easy matter to prescribe aloes, scammony, jalap, &c. in order to purge a patient, who is constantly sick at his stomach. But the object of the prescription is often entirely defeated, in consequence of the patient refusing to take these remedies, or if he takes them, by the impossibility of his being able to retain them on his stomach. The best plan I ever tried, of giving these, and similar nausious medicines, so as to obviate the inconvenience of their disagreeable taste, and to prevent them from being vomited, is to have the various purgative articles made into a soft mass with syrup. Any given quantity of this mass, is to be inclosed in a very thin wafer, made of flour, and softened by being soaked a few minutes in water or milk. The enclosed mass is then put into a spoon with a little water in it, out of which the patient is to swallow it. After this manner, a patient can take, *at one dose, a mass sufficient to make a dozen pills,* and he cannot, without the strongest efforts, throw it up from his stomach; he tastes nothing but the flour wafer, and the nausea of his stomach is not increased, as it would be from his swallowing a quantity of bitter pills. In this way, a large quantity of Peruvian bark may be given at a dose, without the patient's tasting it. One table spoonful of flour, made into a *batter* with water, is sufficient to make sixty wafers. The plan of making them is, to have two smoothing irons heated, one of which is to be placed with its face upwards, on which a few drops of the *batter* is to be poured, and the other iron is then to be pressed upon it. The little cake or wafer, thus made, is, as I before observed, to be soaked in water, before using it, in order to make it sufficiently pliant to enclose the medicine. I venture to assert, that whoever tries this plan of giving nauseous drugs, as aloes, &c. in cases of great irritability of the stomach, will seldom prescribe them in pills, syrup, or solution, calomel, however, can be very conveniently given, floating on a table spoonful of common cold water. A table-spoonful of water will float two scruples, if the calomel be not in lumps, and if it be sifted down lightly on the water. Spirits of turpentine should be purified by mixing it with alcohol, as directed by Dr. Nemmo. With these remarks on the manner of administering remedies in cases of great irritability of the stomach, remarks, though seemingly of little importance every where else, may not be entirely so at the bed side of the sick, I close what I have to say on the Washington yellow fever, the history of which disease, if it does nothing else, will show that an epidemic yellow fever is not necessarily confined to *water courses.*

I now proceed to give an account of some cases of malignant fever, which originated at Haughton's tavern, in the country, about a mile from Natchez. Nine or ten persons died in and about this place with yellow fever. The disease commenced at Haughton's, in September, a little prior to its appearance in Natchez, "On the Hill." If medical topography throws light on the origin of yellow fever in other places, it does not withhold its light in the present instance. Haughton's tavern, and Shears's, (the two houses where all the cases referred to originated) are situated without the chartered limits of the city, on a small peninsula formed by the junction of two very long, deep, and winding bayous. One of the bayous commences on the eastern, the other on the western, side of Natchez; and, with the exception of two or three squares, *the whole* of Natchez is drained by them. The western bayou, after draining the western part of Natchez, passes by the butcheries, receives their offal, and pursues a surpentine course, to meet its fellow, the eastern bayou at Haughton's.

Between the eastern bayou and the foot of the little hill, on which the houses alluded to stand, there is a flat surface of about an acre, *surrounded on all sides by hills.* A gully, leading through the isthmus formed by the two bayous, conducts the water of an adjacent field on this flat surface, over which it spreads, before it falls into the bayou. Haughton's tavern is within ten steps of this flat ground, which, besides what the gully brings on it, and besides its own vegetable productions, is the receptacle of the kitchen offal, and of a privy which has no well. When the eastern and western bayou's meet, a distance from the tavern of about thirty rods, there is also a flat surface surrounded by hills. The eastern and western bayous, in their whole course from Natchez, are seldom less than ten feet wide, and ten feet deep. In many places they are more than fifty yards wide, and as many feet deep. Their banks, which are steep and abrupt, are almost constantly falling in, which obstructs the current of water from a light rain, but affords no obstructions to the torrents which roll down them during heavy rains. In 1823, the yellow fever prevailed at this place. But I then supposed that the polluted atmosphere of the city had extended thus far. I was inclined to this opinion, as several persons, whom I attended, assured me that they had not been in town. I did not, at that time, suspect the bayous of having any agency in the production of yellow fever; but I have, since that time, in my practice through various parts of the adjacent country, which abounds with these bayous, found the remark verified, of an old practitioner of this place, the late Dr. Seip, that "a bayou was more sickly than a marsh."

I again return to Natchez. The yellow fever 'On the Hill,' in 1825, differed but little from that of Washington. But 'Under the Hill,' it resembled more closely in its symptoms and progress that of 1823. Nearly all the physicians who got much practice, adopted the emetic plan of treating the disease of the present year, and these seldom lost more than one in ten of their patients; while, under the old plan, of trusting to a few grains of calomel, frequently repeated, with inunction of mercurial ointment in order to bring on salivation, the disease was about as fatal as formerly. Dr. Hunt, who came to Natchez, very much prejudiced, by education, against emetics in yellow fever, but who is too liberal to advocate the errors of theory, unsupported by facts, threw aside his prejudices, and not only prescribed emetics with great success to his patients, but when attacked with yellow fever himself, commenced the cure by an active emetic, so did Dr. Walker. Neither of these gentlemen ever had cause to repent of this first, yet all-important, step in the treatment of their disease.

Prevention. As respects the best method of preventing the disease, while *usual health* exists; and the best method of preventing the disease, when those who are exposed to its causes become *indisposed, Dr. Cartwright* makes the following observations. Those persons *in health,* who, in order to avoid an attack of this epidemic, had recourse to medicines and ardent spirits to which they were *unaccustomed,* were among the first to be attacked. Fumigations and the smelling of volatile substances, were also found to be of no service. Those persons who escaped, regulated their diet and drinks, not by any fixed rule or standard, but by their former habits; and if they deviated from those habits, they approximated to simplicity and abstemiousness, not carried to the extent of debility; for if the stomach were not sufficiently excited by food and drinks, the same effect was produced as if it had been too highly stimulated, viz. a derangement of action between it and the organs with which it is associated. Those who had been temperate and abstemious, continued to be so. Two persons who had, for several years, kept up a strong excitement by ardent spirits, continued it during the prevalence of the epidemic, and entirely escaped. But all who had not previously been habitual drunkards that imitated their example, became sick and died. Ardent spirits kept up the equilebrium of action in the systems of the former, but destroyed that equilebrium in the latter. Finally, those who escaped were such as preserved this equilebrium, by accommodating their diet, drinks, sleep, and exercise, to the existing state of the system, and to their former habits, avoiding all existing causes, as heat, cold, fatigue, &c.

As to those who are *indisposed,* it was found that the best means of warding off the attack, or rendering it milder, was to ascertain in what way the *threat* is made, and to apply the remedies accordingly. Persons of plethoric habit, whenever they felt a fulness and uneasiness about the head, or a disposition to fever, were relieved by bleeding. and escaped. Others whose indisposition proceeded from a torpid state of the bowols, to which they were subject, escaped by the occasional use of aperients. To those who complained of a bitter or mawkish taste in the mouth, sickness at the stomach, achings in the bones, soreness of the flesh and sleeplessness, emetics were prescribed with success. A gentleman who complained of pain in his back, with restlessness and anxiety, and whose urine had, for several days, been small in quantity, was enabled, by a free use of diluent drinks and diuretics, entirely to avoid the attack of the epidemic.

From these facts it is plain, that though the poisonous atmosphere of yellow fever may long be breathed with impunity, while a due balance of action among the various organs is preserved, yet not so when it is *broken;* that living in such an atmosphore tends to break that balance; the smallest disturbance of which is announced by symptoms which often point directly to the organ in which the disturbance has commenced, and which, in many cases, may, by timely and appropriate measures, be restored to its heathy functions.

ADMONITORY

HINTS TO LADIES.

Light were my task if every gentle breast
Owned the just laws of native truth imprest;
For not by hopes of vain applause misled,
In reason's injured cause alone I plead.
'Tis you to judge; nor I that judgement fear
If truth be sacred, and if virtue dear.

Roscoe.

If we consider but for a moment the wonderful power which superior beauty in woman exerts over the human breast; how instantly, on the approach of its possessor, the hearts of the young are thrown into the most delightful palpitations, and the looks of the aged brightened with admiration and pleasure; we can no longer wonder that it should be so highly prized by the sex. But it is to be lamented, that the most preposterous means should be employed to gain a property so desirable, and that real beauty should be so often abused.

Thus, some girls fancy that beauty can only exist in forms slender and delicate. At the very thought of being corpulent, they are alarmed, and to obviate grossness, as they call it, they drink such quantities of vinegar, that not only destroys the tone of the stomach, but introduces a withered ghastly paleness. For the same purpose they continue the absurd practice of wearing jackets, or corsets, so oppressive, as by compressing the ribs, to prevent the expansion of the lungs.

Another imprudence, and still more detrimental, is that of appearing at assemblies, in winter, in light dresses, exposed to the baneful effects of *cold*, with the aggravating addition of extraordinary warmth, by the fatigue of dancing; hence consumptions, and a train of maladies, too long to be here particularly described, are produced.

Motives of delicacy, as well as regard for health, have been repeatedly urged in vain to enforce the necessity of relinquishing these destructive habits; the arguments of the moralist and of the physician, having alike failed to convey conviction, and hundreds, who would now have shone forth among the loveliest of their sex, have been dressed in shrouds, because, "in an evil hour," they laid aside those articles of their apparel which health, as well as decency, forbade them to relinquish.

There are others who, reading of the fair skinned belles of Europe, foolishly conclude that the *rose* and the *lilly* are the only colours of *beauty*.

Catching at this female passion for fair and unfreckled faces, the quacks have prepared a number of *nostrums*, called cosmetics or beautifiers, which, they vauntingly profess, are to heal the chaps on the lips; to remove pimples and freckles; and to give the countenance such a fair, smooth, and charming appearance, as to reder it impossible for any one to contemplate it without being enamoured. But unfortunately, these boasted *cosmetics*, instead of heightening the polish and charm of beauty, too often contribute to tarnish and destroy it.* The truth is, *beauty* is not the creature of a quack, but the gift of nature; and to bring it to perfection, nothing more is necessary than exercise, cleanliness, temperance and cheerfulness. These are the handmaids of health; and *health*, to persons of certain symmetries and expression, is *beauty*.

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*To such of my readers as are partial to the use of cosmetics, an infusion of horse-radish in milk is recommended as one of the best and safest Another innocent preparation for clearing the skin of pimples, and recent eruptions, is the expressed juice of house-leak, mixed with an equal quantity of sweet milk or cream. When these fail, blistering the face all over the eruptions will often succeed in removing them.

———————————The rural wilds
Invite; the mountains call you, and the vales,
The woods, the streams, and each ambrosial breeze
That fans the ever undulating sky;
A kindly sky! whose fostering power regales
Man, beast, and all the vegetable reign.

ARMSTRONG.

How much, then, is it to be deplored, that so many of our young females should think so meanly of exercise, which, alone, brings the female frame to perfection—paints it in the loveliest colours—and by giving richness to the blood, and vigor to the nerves, disposes to habitual cheerfulness, and alike qualifies the mind for thought, and the heart for love.

On the contrary, how different is the female who leads an inactive and sedentary life, too generally looked on as proofs of a fine modern lady, which seldom fail to relax the system—retard the circulation—vitiate the blood, and obstruct the secretions. Hence, that chalky paleness of the face—that faintness of the eyes—indigestion—flatulence—weak nerves—low spirits—irregularities of nature and constant complainings.

The grand discharge, th' effusion of the skin
Slowly impaired, the languid maladies
Creep on, and through the sinking functions steal.

ARMSTRONG.

Yes, many a girl by constant muffling and housing herself; by dreading that the sun should ever kiss her cheeks, or the wind ruffle her tuckers; by much indulgence in bed, and other imprudencies, renders herself so exceedingly pale, delicate, and puny, that her appearance is better fitted to damp love than to excite it.

"The vigor sinks, the habit melts away;
The cheerful, pure, and animated bloom
Dies from the face, with squalid atrophy
Devoured."

MANAGEMENT

OF

FEMALE COMPLAINTS.

MENSTRUATION.

ONE of the principal constitutional characteristics of the female, is menstruation, or the monthly evacuations peculiar to the sex.

This important operation generally takes place about the age of twelve or thirteen, but varies through the world, either in degree or frequency, both from constitution and climate.

Women in the higher ranks of life, and those of a delicate nervous constitution, are subject to sickness, headach, and pains in the back and loins, during the periodical evacuation. Those of the lower rank, inured to exercise and labor, and strangers to those refinements which debilitate the system, and interrupt the functions essential to the preservation of health, are seldom observed to suffer at these times, unless from general indisposition, or a diseased state of the womb.

After the discharge has become established, it recurs periodically while in health; and its recurrence is so regular that it can be calculated with great exactness. The usual period of its visitations is from twenty-seven to thirty days. As to the time of its continuance, this is various in different women; but it seldom continues longer than six days, or less than three, and does not cease suddenly, but in a gradual manner.

Its approach is generally preceded by certain feelings of oppression or deviation from the ordinary state of health which warn the individual of what is to happen. There is, in particular, a sensation of fulness about the lower part of the belly, and of relaxation about the uterine system, which can scarcely be overlooked by the most heedless. It must at the same time be admitted, that in some few constitutions those feelings are so inconsiderable as to be little attended to, so that the woman mixes in society as usual, without any apparent inconvenience.

It is of importance for women to know that occasional irregularities are not always the consequence of disease. Constitutions vary as much in respect to the regular returns of this discharge, as they do with regard to its first appearance or its final cessation. Those in whom the change occurs very early from vigour of constitution, require little to be done for them; but, in weak and delicate habits, the non-appearance of this evacuation is too often considered as the cause, whereas, it ought to be viewed as the effect, of the state of the habit unpropitious to its taking place. And according to family practice, under this false impression, warm teas and forcing medicines are employed at the approach of this disease, which have often done much harm.

Nature is not so defective in her own judgment as to require such auxiliaries. Care should be taken to improve the general state of their health, by attention to diet, moderate exercise, change of air, and cheerfulness, which will be found to have the happiest influence on the body and mind, and gives a salutary impulse to the circulation of the blood. With respect to the flow of the menses, women should remember, that what is to one woman a due proportion, would be to another, from the difference of constitution, and temperament, an immoderate flow; and before they attempt to restrain it, let them carefully consider, what may have been the exciting or occasional cause. They are too frequently told that such a situation arisen from mere debility; and under that belief will take cordials, and stimulating medicines. In general this is not the case, and by such improper treatment, the flow is increased, and the habit rendered feverish.

The quantity generally discharged in a healthy and regular woman is from four to six ounces at each visitation. Those of a delicate constitution have, however, a more copious and longer continued discharge than persons of a robust hab t, thus the full blooming country girl does not discharge half the quantity that the pale faced lady of quality does. In some instances the menstrual discharge does not make its appearance before the age of seventeen or eighteen, and nevertheless, health is not in the least affected. The mere want of evacuation at the ordinary time, therefore, is not to be considered as morbid, unless the system is evidently deranged thereby. In many cases, however, symptoms of disease appear which are evidently connected with the defect of the menses, and go off upon its discharge. The treatment in such cases must be regulated by the particular circumstances and constitution of the individual. There is no remedy adapted to every case of this kind, but an open state of the bowels, and a due regulation of the diet, together with moderate exercise, are useful in every instance of this complaint. Warm clothing too, particularly about the lower extremities, is of most essential benefit. The occasional use of the warm bath is pleasant and beneficial, especially if the skin be dry and warm. As the health improves, the cold bath will prove an auxiliary, if, after using it, the patient feels a glow of heat, and a greater degree of liveliness. When the means ordinarily employed have failed, marriage, or a change of climate, has produced the wished-for effect.

In some instances the evacuation is impeded by a mechanical cause, that is, an obstruction of the passage to the womb. This occasionally is met with, and the chief obstacle to its speedy removal is the difficulty of ascertaining its existence. The operation by which it is completely remedied, is not more painful nor formidable than blood-letting.

Fortunately, in most cases, the evacuation takes place in due time, and the constitution sustains no material or permanent injury. It is, however, in every instance, proper to pay particular attention to the system during the continuance of the evacuation.

The stomach and bowels are, at this period, very easily disordered, and therefore every thing which is heavy or indigestible, ought to be avoided. Some are hurt by eating fruit or vegetables; others by taking fermented liquor. In this respect experience must enable each individual to judge for herself. Exposure to cold, particularly getting the feet wet, is hurtful, as it tends suddenly to obstruct the discharge. The same effect is likewise produced by violent passions of the mind, which are also at this time, peculiarly apt to excite spasmodic affections, or hysterical fits.

It is, in general, a very proper rule, not to administer any very active medicines, at this time, unless some violent symptom absolutely requires them. Opiates, for instance, are, in many cases, necessary to allay spasmodic affections, or abate pain; and they are in such circumstances uniformly safe. They give speedy relief to hysterical feeling or suffocation, or to spasm of the stomach and bowels. Blood-letting is also, in some instances, necessary, from particular circumstances, at this period, and in such cases it is safe, and does not obstruct the evacuation.

Dancing, exposure to much heat, or making any great or fatiguing exertion are improper. These causes may increase, to an improper degree, the quantity of the evacuation, and in certain circumstances may give a disposition to a falling down of the womb.

To conclude, the period or time of life, when the monthly evacuation should disappear altogether, is considered as critical. It is really so in two cases. The first is, when the woman has suffered considerably at each period, from sickness, pain, and disorder of the bowels. Such women, not unfrequently, when the constitution is freed from the monthly change enjoy better health than formerly. The second is, when there is a tendency to disease, in some particular organ, especially in the womb itself, in some of the abdominal viscera, or in any one of the breasts. In such cases, the time of life may prove the period, at which the disease begins to make its progress.

The time, at which this evacuation ceases, varies from the forty-fourth to the fiftieth year. It is usual, for some time before it disappears, that it should become irregular. It not only is sometimes greatly less, and again much more in quantity than usual, but it also is occasionally obstructed for some months, and then, perhaps, comes oftener than it ought to do.

The occasional obstruction, before the final cessation of the discharge, is frequently accompanied with sickness, and swelling, of the belly, from the wind in the bowels. These circumstances, sometimes incline married women, for some weeks, to consider themselves with child.

Others again, averse to be thought old, flatter themselves that the irregularity is occasioned by cold, or some accidental circumstances, and therefore very improperly employ their utmost endeavours to recall it.

The complaints which, in many women, occur at this period of life, are to be ascribed rather to a general change in the habit, than merely to the absence or total cessation of the sexual evacuation.

Women who have never had children, or good regular health, or those who have been weakened by frequent miscarriage, are most apt to suffer at the decline of life.

It frequently happens, that women who were formerly much pained when out of order, or who were troubled with nervous and hysteric complaints, begin at the cessation of the periodical discharge to enjoy a good state of health, to which they had formerly been strangers.

When no particular complaint occurs in consequence of the decline of life, it would be exceedingly absurd to reduce the strength by an abstemous diet and low living.

If, on the contrary, headach, flushings of the face, or an increased degree of heat, restlessness in the night, and violent pains in the belly and loins, swellings of the feet, or eruptions on different parts of the body take place at this period, there is reason to believe that a general *fulness* exists, in consequence of the stoppage of the accustomed discharge. Under such circumstances, spare living, with increased exercise, occasional blood letting, and frequent gentle purgatives are enjoined.

If ulcers break out in the legs, or in any other part of the body, on a total cessation of the menses, they ought to be regarded as critical discharges, and should by no means be healed up without substituting some other drains by an issue.

PAINFUL MENSTRUATION.

In some instances, menstruation is attended with great pain in the back, thighs, and lower part of the belly. This state is sometimes accompanied with suppression of urine, or violent colic pain and spasms of the stomach. The discharge generally takes place slowly, and is deficient in quantity, and not unfrequently attended with the expulsion of a skinny looking substance.

Causes. This disease is supposed to be owing to a weak action of the vessels of the uterus, or spasm of the extreme vessels. Pain sometimes attends copious menstruation; but whenever it does, there is much reason to apprehend some local disorder of the womb.

Treatment. So soon as the symptoms that denote its approach are apparent, recourse should be had to the warm bath; when this is not convenient, the patient should sit fifteen or twenty minutes in a tub of warm water, or cloths wrung out of warm water, or a bladder two-thirds filled with it, should be applied to the lower part of the belly. After this the back and abdomen should be well rubbed with the camphorated, or volatile anodyne liniment, and if the pain continue, the anodyne clyster should be administered. If, notwithstanding these means, the pain becomes violent, it will be proper to give a tea-spoonful of the diaphoretic drops, or four or five grains of Dover's powders, or one of the camphorated powders [*See Dispensatory*] every hour or two until a gentle, but general perspiration be induced. This is also to be encouraged by drinking warm penny-royal or ginger tea. When this complaint arises from general fulness and irritation, it may require repeated bleeding and purging. If there be pain in the stomach without fever, give a tea-spoonful of laudanum, with twenty drops of essence of peppermint; or should costiveness prevail, give a dose of castor oil in conjunction with the anodyne.

For the cure of this distressing complaint, Dr. Fothergill recommends a pill of opium, of one grain, to be taken the moment the pain comes on, and to be repeated every hour until it be suppressed; to keep the patient in bed; and to let her dilute freely with herb teas, until the discharge be fully established, after which the pain seldom returns; and when the period has passed chalibeate bitters until within a few days of the next period. Dr. Denman proposed small doses of calomel every night at bed time, for several weeks together, and twice in the course of the day, a dose of the volatile tincture of the Peruvian bark. Dr. Dewees, of Philadelphia, recommends the volatile tincture of gum guaiacum, to be continued for a considerable length of time, and says it acts almost as a specific. And Dr. Robertson, of Edinburg, is as sanguine in praise of the tincture of cantharides given in pretty large doses, thrice a day, until it excites some degree of pain in voiding the urine.

Prevention. In order to prevent this painful state, in those who are subject to it, the warm bath should be used, three or four nights preceding the menstrual period, and on going to bed, two tea-spoonfuls of the diaphoretics drops, or ten grains of Dover's powder should be given in some warm tea. The bowels are to be kept uniformly regular; and exposure to cold, especially near the time of the appearance of the discharge, is to be carefully avoided.

The constitution is to be improved, and strengthened by such means, as its particular condition requires, and in general, by the use of tonic medicines, and the shower bath, provided these do not disagree with the patient.

OBSTRUCTED MENSES.

Many woman have the menstrual evacuation postponed for a week or two, beyond the usual time, or miss one or two periods without any very evident cause, and without inconvenience. But when it is suddenly suppressed very troublesome symptoms occur; and when it is retained for any considerable length of time, it is usually attended by bad health.

SYMPTOMS. When suddenly checked, it is usually attended with considerable pain in the back, bowels, or stomach, and sometimes in the chest. In persons of a full habit the face is generally flushed, the pulse hard and frequent, flying pains in the chest, perhaps spitting of blood, cough, palpitation, difficulty of breathing, and a complication of nervous affection.

Persons of a delicate frame and a melancholic temperament, and especially those who have suffered from some debilitating cause, have different symptoms, constituting what has been called chlorosis, or *Green sickness*, a disease always connected with, and depending on, some derangement of the sensual organs.

In *chlorosis*, every symptom of feebleness prevails, a pale skin, and even a greenish complexion, succeeds to the rosy hue of health; the skin under the eyes puffy and of a leaden colour; the whole body lax, œdematous and doughy; the judgment, memory, and natural cheerfulness impaired; the pulse is generally slow and feeble, but easily excited; and it is then accompanied with shortness of breath, a palpitation of the heart, and an almost unconquerable disinclination to motion; the appetite is destroyed, and the stomach so deranged, that the food, instead of being digested, undergoes the fermentation peculiar to its nature. Hence the patient finds gratification in chalk, lime, pieces of old wall, and other improper substances; and the bowels are commonly costive.

It not unfrequently happens that the blood which should have passed off by the uterus, being determined more copiously and forcibly to other parts, gives rise to hemorrhages; hence it is frequently poured from the nose, stomach, lungs, and other parts, in such cases.

CAUSES. A constriction of the extremities of the vessels of the womb arising from accidental circumstances, such as exposure to cold, anxiety of the mind, fear, excessive evacuations. inactivity of the body, poor blood, the frequent use of acids, and other sedatives, &c. In some constitutions, particularly in those where pain attends the discharge, very slight occurrences suddenly interrupt the flow, and prevent its usual return, such as passions of the mind, fright, fatigue, irregularities of diet, putting on damp clothes, &c. This fact shews the necessity for certain cautions and attention during the discharge. Obstruction, too, is sometimes the effect of disease of the general habit.

TREATMENT. When the evacuation ~~has been~~ suddenly checked, it is proper to have immediate recourse to the warm bath, or sitting up to the hips in warm water, or fomentations to the lower part of the abdomen, and bathing the feet in warm water. It is also advisable to put the patient to bed and give a tea-spoonful of the diaphoretic drops, or five or six grains of Dover's powders, in a cup of warm herb tea, such as sage, hysop, penny-royal, every two hours until a gentle perspiration is produced. Should there be fever, or pain in the head, or discharge of blood from other organs, bleed, give the cathartic mixture, or an infusion of salts, senna and manna, and afterwards endeavour to determine to the surface by the exhibition of diaphoretic medicines. In every case where there are febrile symptoms, and amendment cannot take place until the antiphlogistic plan, such as bleeding, nitrous medicines, cooling cathartics, and a low diet, with rest, are adopted. After the febrile symptoms are removed, strengthening medicines, if necessary, may be employed, and in no instance suffer the bowels to remain in a constipated state.

It is necessary to observe, in endeavouring to restore the monthly evacuation, we shall more likely succeed; if the usual remedies for removing the constriction which affects the extremities of the vessels in the womb are directed at the time of its expected return, or when some natural efforts for that purpose are observable, which may be known by a sense of fulness in the organs of generation, a weight in the back and loins, and slight spasmodic pains in the uterus. At this period, bladders two-thirds filled with warm water, applied to the lower part of the abdomen, or sitting over a vessel filled with hot water, will have a most happy effect. And to increase the relaxing powers of these topical applications, we may, at the same time, give an opiate, particularly in the form of clyster, when there is pain.

Sometimes an emetic administered about the time when the evacuation should appear, and the patient during the operation to sit in a warm bath has been of infinite service. In some instances an obstruction may continue in young and healthy woman, for many months without any inconvenience. This is chiefly the case in those who are very corpulent, or who have been in the pernicious practice of employing vinegar and strong purges to reduce their size. By the regular use of exercise, rising early in the morning, avoiding supper, keeping the bowels correct, and living upon the whole rather abstemiously, the health will be preserved, and in course of time, the desired alteration will take place.

Obstruction of the menses may also occur in young women with florid complexions, but, at the same time, of very delicate constitutions, and subject to a slight cough, with pain in the breast, and a predisposition to consumption. Such cases require the utmost caution; and in them, small bleedings, an antiphlogistic diet, mild laxatives, a temperate climate, warm dress, and moderate exercise, are essential; and when it can be procured, a sea-voyage, or change of air, will probably prove the most useful remedy.

In the chlorotic species of obstruction, the treatment is much the same, as advised under the head of menstruation, for the management of those who are long having this evacuation. It will be found, almost in every instance, the complaint is occasioned by general debility, consequently, the cure must be regulated on the plan of increasing the tone of the system and exciting the action of the uterine vessels in particular. This is to be effected by a nourishing diet, moderate use of wine, change of air, gentle exercise, particularly riding on horseback with strengthening medicines, as bark and elixir vitriol, the rust or tincture of steel, or the tonic powders or pills in their usual doses, together with the occasional use of calomel or the stimulating purgative pills, [*See Dispensatory*] to keep the bowels in a regular state. The nitric acid, diluted in doses of a wine glassful three or four times a-day, will be found a valuable medicine to improve the habit of body. And if the obstruction be attended with cough, it should be given in the form of the nitric lac-ammonic. [*See Dispensatory.*]

Previous to the use of tonic medicines, it is advisable to give an emetic, and afterwards a dose of calomel and rhubarb, or the aperient and diaphoretic pills, for the purpose of cleansing the stomach and freeing it from acidities and inactive fluids. Costiveness being a constant attendant on this disease, it is of the greatest importance, that purgatives be repeated, until all the sordes which have been collecting, most probably for a considerable length of time. shall be removed. After this, and not before, the happiest effects may be expected from the use of tonic medicines.

Besides the above remedies, many others may be employed with the same view, as an infusion of camomile, wild cherry, or dogwood bark, tansy, penny-royal, hysop, rue, &c. A table-spoonful of mustard seed, morning and evening, or a tea-cupful of a weak infusion of horse-raddish on some occasions have produced very good effects.

Two ounces of the rust of steel, or filings of iron, steeped in a bottle of wine or cider for a week, and given in doses of a small wine-glassful morning, noon, and night, has also been found beneficial.

With the view of exciting into action the uterine vessels, the surface of the body should be kept warm by means of a flannel shift and drawers, by frequent friction of the lower part of the abdomen and limbs with a flesh brush or flannel, and by the exercise of walking, dancing and jumping. By marriage, or a change in the mode of life, the disorder has frequently been removed, after having resisted all the ordinary remedies.

In those instances, when the evacuation has become suppressed in consequence of previous bad health, it is evident that no attempt to restore it can either be effectual or useful till the cause be removed. Some have obstruction caused by very slight weakness, or very early in chronic diseases, others continue regular, till even the last stage of consumption. From the great variety of causes of sexual obstruction, it is certain that many medicines, which possess very opposite powers, may, in different cases, produce the same effects. For the same reason, a remedy which, in one case, may prove mild, inoffensive, and successful, will, in another apparently similar, occasion a most violent disorder. No remedy applicable to every case can possibly be discovered, therefore, medicines, with a view to restore the periodical evacuation, ought to be employed with the greatest caution.

IMMODERATE FLOW OF THE MENSES.

This alarming complaint may occur under two different states of the constitution. In the one, the woman is of a full habit, and often of a ruddy countenance. In the other, she is pale, delicate, and easily fatigued.

Symptoms. In plethoric habits it is often preceded by headach, giddiness, or difficult breathing, and is afterwards attended with pain in the back and loins, universal heat, and a frequent, strong, and hard pulse. But, when it arises from general debility, or in consequence of a laxity of the organ, paleness of the face, chilliness, lassitude of the whole body, oppressed breathing on the slightest effort, pains in the back on remaining any length of time in an erect posture, and coldness of the extremities, together with a long train of nervous complaints.

CAUSES. A variety of causes may produce this troublesome disease. Some of these are general, such as a state of great weakness, or of too much blood; others are local, such as debility of the uterus occasioned by tedious labor or frequent miscarriages. It may also be produced by accidental circumstances determining the blood more copiously and forcibly into the uterine vessels, as violent exercise in dancing, much straining at stool from great costiveness, contusion on the belly, excess in venery, or strong passions of the mind, particularly at the menstrual period.

TREATMENT. In the management of this disease we have two objects: first, to moderate the discharge and procure present security; and, second, to prevent a return.

The first thing to be done when the hemorrhage is sudden or profuse, is instantly to remove the clothing which may occasion the least interruption to the free circulation of the blood, and to put the patient to bed, lightly covered with clothes. So long as the discharge continues, it is of importance to keep her in a recumbent posture, as cool as possible, and perfectly at rest, both in body and mind. Cloths, dipped in cold vinegar and water, and renewed as often as they become warm. These cold applications have a powerful effect in restraining uterine hemorrhage, and ought never to be omitted where the discharge of blood is profuse.

If the patient be of a full habit, attended with severe pain in the head or back, and febrile symptoms, it will be proper to bleed, and to give the antimonial, or febrifuge powders or mixture. [*See Dispensatory.*]

The state of the belly must also be attended to. It can be kept gently open by the cathartic mixture, sulphur, or any mild laxative medicine. Stimulating purgatives, or clysters, under such circumstances, are impropor, from their tendency to increase the discharge.

When no symptom indicating an increased action in the vessels of the womb are present, astringent medicines should be employed. And, in cases where the discharges have not continued long, and the strength not much impaired, it is often sufficient to arrest the disease by giving fifteen or twenty drops of elixir vitriol, or six or eight grains of alum dissolved in a glass cold water every hour; or, what is preferable, alum whey, sweetened to the taste, in doses of a small cupful, as often as the stomach will receive it. But, if the discharge be obstinate, we should have recourse to pills of sugar of lead and opium. [*See Dispensatory.*]

In no instance which has come under my knowledge, where the hemorrhage was in consequence of a laxity of the uterine vessels, have these pills failed in producing the desired effect.

In those cases where the hemorrhage is profuse, or of long continuance, and resists the means already pointed out, it will be proper to inject into the uterus from a gill to a half pint of a strong decoction of oak bark, in which one or two drachms of alum has been dissolved, or as much of the saturated solution of alum in water, in order to constringe and strengthen the vessels of the womb. This may be repeated twice or thrice a-day, according to circumstances.

When symptoms of an increased action in the vessels of the womb are observable, the tincture of foxglove, in doses of twenty drops every four hours, constitute the best remedy.

When there is reason to suppose the hemorrhage proceeds from a scirrhous or ulcerated state of the womb, all that can be done is to afford temporary relief by giving opium in large doses. Indeed opiates may be given with advantage in every case where there is considerable pain or anxiety, and the patient much exhausted. Under these circumstances, from one to two tea-spoonfuls of laudanum, or from two to four grains of opium, according to the urgency of the case, will be useful not only in giving a check to the discharge, but also in preserving the strength, and abating nervous irritation. In most cases it is preferable to give opium in the form of injections to allay the spasmodic pains of the womb, and, when administered in this way, clysters of thin starch or gruel, in each of which two tea spoonfuls of laudanum is added, should be given every two hours until relief is obtained. [*See abortion and flooding.*]

Regimen. The diet, at the time of excessive discharge, must be light and cool. The drink must always be cold, as ice water, lemonade, or tamarind beverage. Port wine in such cases is too frequently resorted to, which uniformly does harm by increasing the circulation.

Prevention. To prevent a recurrence of the attack in those who are subject to it, the patient must necessarily avoid the causes by which it has been produced.

When it is evident that the discharge is in consequence of a full habit, it will be proper to reduce the system, by living sparingly, by keeping the bowels rather in a laxative state, and by rising early, and taking through the day regular but frequent exercise; and, after the plethora is removed, by strengthening vessels which have been over distended, by the use of the cold bath.

In a greater number of cases, however, we meet with a delicate constitution and spare habit, with pale countenance; this state requires the use of sea bathing or the shower bath, and the vessels of the womb are particularly strengthened by pouring cold water daily on the back and loins.

It will be advisable to use a generous nutritive diet, with wine, and to have recourse to some of the tonic medicines, as advised under the head of obstructed menses, to strengthen the system generally. At the same time the bowels must be attended to, and invigorating exercise taken daily; whilst, on the other hand, fatigue, and especially exposure to relaxing heat, must carefully be avoided.

SEXUAL WEAKNESS.

This complaint, commonly called *fluor albus*, or *whites*, to which women are peculiarly subject, must form an important object of attention, since it is always attended with disagreeable symptoms, and, when aggravated, soon spoils the beauty of a fine face, weakens the digestive powers, produces a general bad habit, and occasions sterility.

Symptoms. An irregular discharge from the passage leading to the womb, of a fluid, which, in different women, varies much in colour, being of a white, green, yellow, or brown hue. In the beginning it is, however, most usually white and pellucid, and, in progress of the complaint, acquires the various discolorations and different degrees of acrimony, whence proceed a slight smarting in making water. Besides the discharge, the patient is frequently afflicted with severe and constant pains in the back and loins, indigestion, paleness of the face, chilliness, and langour. In process of time, every symptom becomes highly aggravated, the feet and ancles swell, palpitations, and a difficulty of respiration are experienced, the menstrual discharge is rendered irregular, the urine is turbid, the mind is dejected, and either consumption or dropsy sepervenes and terminates a miserable existence.

In some languid habits, the fluor albus returns periodically, instead of the proper menstrual evacuation, until the patient's constitution is duly invigorated.

Causes. It may be produced by any cause which either weakens or irritates the womb and its appendages. It may arise from general debility of the constitution, but it is especially caused by circumstances impairing the power of the womb itself, as, for instance, a severe labor, a miscarriage, or profuse menstruation.

In some instances it appears to depend on a full and irritable habit of body, and, in other cases, of local irritation, such as disorders of the womb, or of the urinary organs, or a collection in the gut of the small thready worms called ascarides.

Upon the high authority of Dr. Hamilton, this disease is most frequently first brought on by some imprudence in respect to diet and clothing, or exposure to cold or fatigue, or neglect of the bowels about the time when menstruation begins.

TREATMENT. In the treatment of this complaint regard must be had to the apparent cause, and to the state of the patient. The discharge is too often considered by the sex as the effects of general weakness in their habit, and, therefore, are led to the indiscriminate use of heating medicines, as port wine, balsam capivi, &c. without paying attention to the habit of the body, or cause of the disease.

A milk diet, change of air, and the partial cold bath, as sponging the loins and thighs with cold water every morning, with attention to cleanliness and proper exercise, are often sufficient to arrest the disease, if early adopted.

In addition to this plan of treatment, if the patient be of a full habit, a disposition to fever from slight causes, attended with a sense of heat about the passage to the womb, it will be necessary to have recourse to the lancet, cooling cathartics, and febrifuge medicines, and to inject, several times a day, flaxseed tea or milk and water, into the passage of the womb. In the great majority of cases, the complaint arises from general debility or laxity of the vessels of the parts, and in such cases the indications of cure are to increase the vital heat, promote the digestion and restrain the preternatural discharge. In order to which, recourse must be had to such of the tonic medicines as will be found to agree best with the patient. Of these, the bark and elixir vitriol, the tonic powders or pills, the rust or tincture of steel, and lime water have usually been employed, and often with good effects. In some instances, however, I have known these medicines to fail, when the nitric acid diluted, [*See Dispensatory*] in doses of a wine-glassful three or four times a-day wonderfully succeeded.

Previous to the exhibition of tonic medicines, it is advisable to give a dose of ipecacuanha or antimonial wine. Gentle emetics are supposed to be of singular utility in this complaint, not only by cleaning the stomach and bowels, and making a revulsion of the humours from the inferior part of the body, but likewise by their exciting all the powers of the constitution to a more vigorous action.

The bowels must be kept in a regular state by conjoining a few grains of rhubarb with some of the tonic medicines, or by taking occasionally, at bed time, one of the aloetic, or aperient or diaphoretic pills, or in the morning a tea-spoonful of Epsom salts dissolved in a tumbler of water.

If there be a fulness of the stomach after eating, the tincture of rhubarb in small doses will excite digestion. In obstinate cases, it is often expedient to produce a change in the system, by giving a grain or two of calomel, or one of the mercurial pills at bed time until the gums become slightly effected, and then the cure may be completed by strengthening medicines, together with the shower bath.

Besides tonics, stimulating medicines, such as commonly determine to the urinary passages, have very frequently been employed with great benefit. Of these, rosin in doses of ten grains in the yolk of an egg, or spoonful of molasses, or balsam capiva in doses of a tea-spoonful, or tincture of catharides in doses of twenty or thirty drops in some mucilaginous drink, and taken three or four times a-day, will be found most salutary.

These means strike at the cause of the complaint, but if it do not remove the effect very soon, we are not to trust to them alone. For once a morbid secretion being excited, it is very apt to continue, although the exciting cause cease to operate.

On this account we ought, without delay, to have recourse to astringent injections, such as a strong decoction of red oak bark, with the addition of a little alum or a solution of alum in water. Half an ounce of the former to be dissolved in a bottle of water which should be thrown into the vagina by means of a female syringe, two or three times a-day. The celebrated Dr. Burns, says, after many trials, he satisfied himself, that although assistance may be derived from internal medicines and the cold bath, yet the chief dependence is to be placed on astringent applications to the seat of the discharge; and these, where there is no fulness of the general system, nor any affection of the womb itself, are perfectly safe, and seldom fail in producing a cure.

It will be prudent when this disease occurs as an early symptom of pregnancy not to check the discharge suddenly, lest miscarriage be the consequence; but it may be moderated by injections of water, with the addition of a little vinegar, or an infusion of green tea. Neither should the discharge be suddenly suppressed when it has been of long standing, and acquired a considerable degree of acrimony, with an offensive smell. For if it be unseasonably checked, the belly swells, and a train of the most disagreeable symptoms occur. In such cases, soap suds, or an infusion of camomile flowers or hops, should be frequently thrown up the vagina; and so soon as the blood is freed of its impurities, by suitable medicines, and recovered, in some measure, its soft and balmy quality of which it hath been deprived, the astringent injections may be employed with perfect safety.

The application of a blister to the sacrum, has, in some obstinate cases, been attended with advantage.

When the fluor albus proceeds from worms, purgatives and bitter clysters are the proper remedies.

Pain in the back and loins is often mitigated by the application of a large adhesive or strengthening plaster, and by avoiding a standing posture of long continuance, much walking, dancing, or any other violent exertion.

Women should carefully avoid all the remote causes of the disease; they should pay diligent attention to cleanliness, by washing the parts frequently with cold water; and when there are excoriations, milk and water, or lead water, may be employed as a wash.

REGIMEN. The diet should be light, cordial, and nourishing, consisting of isinglass dissolved in milk by boiling it, jellies, custards, rice, milk, soft boiled eggs, gelatinous broths, and light meats, together with a prudent use of genuine wine, particularly claret or port.

Women, afflicted with this disease, should by no means indulge in the use of tea and other warm slops of a relaxing nature; but should lie on a matress in preference to a feather bed; and they should rise early, and take such daily exercise as their strength will admit, particularly on horseback. When there is much langour with chilliness, friction with the flesh brush, and wearing flannel next the skin must not be omitted.

PREGNANCY.

The great varieties of the female constitution occasion pregnancy to be, to some of the sex, of no trouble or distress, through the whole period of child-bearing; but it is to others often a continual disease, being, perhaps, from the very first week to the last of their pregnancy, more or less disturbed in their frame from the peculiar irritability of their habits.

Some feel, very soon after conception, such an alteration in the state of the stomach, or in their sensations in general, as apprises them of their situation. The woman is troubled with heart-burn, acidity, want of appetite, or disgust at her usual food, and sometimes has a craving for things she formerly did not desire. She is usually sick in the morning, and generally vomits after she gets up, though some have no sickness till the afternoon. Sudden qualms and feeling of faintness, with or without an inclination to reach, occur at different times in the day. The bowels also generally become bound. Some, instead of being sick, or in addition to the fits of sickness, are troubled with a constant desire to spit, with tooth ach, water-brash, cough, nettlerash, or other affections. But the time to which these extend, varies, as well as the period at which they take place.

In the young and healty constitution, one of the most early symptoms of the incipient stage of pregnancy, is an uneasiness in the breasts, somewhat differing from what she may have been accustomed to on the eve of menstruation, and soon attended with some sensible addition to the natural fulness and weight, as well as with a particular change in the appearance of the areola, or dark circle round each nipple. The nipples also soon become more prominent, the bulbous or gladular eminences around them enlarge, and a milky fluid will stain the linen, which had not been observed before.

These occurrences may justly excite in the mind, the first apprehension of pregnancy, after which, the interrupted course of the menstruation generally establishes the certainty of the situation. Obstruction, however, it must be recollected, may take place from other causes; hence, though we conclude, that she who is regular is not pregnant, we cannot infer, to a certainty, that she who is obstructed is conceived. A woman in good health may accidently be obstructed for one or two periods, but in this case the other signs of conceptions are usually absent, and at all events, prudence will dictate the necessity of patience till the fourth month. In bad health the courses are often stopped, but in such circumstances the appearances of pregnancy are absent, whilst the symptoms of the accompanying disease point out the nature of the case. There is a situation in which there may, for a time, be some ambignity, and that is where the woman has actually conceived, but the embryo has almost immediately perished, yet has not come away, but, together with some blood in the womb, is converted into a pretty firm, but shapeless mass, called *a mole or false conception.*

About the end of the fourth month, or a little sooner or later, in difficult cases the motion of the child is perceived, and this is the most satisfactory of all the signs; but those who are anxious to think themselves pregnant, when they really are not, are apt to mistake wind, passing along the bowels, for the motion of the child.

The motion is at first gentle, it is felt pretty low, and resembles a gentle fluttering. The sensation is peculiar, and not unfrequently is, at first, accompanied with sickness, faintishness, or hysterical affections. It may be felt by night or day, and may either be repeated pretty regularly, or may not be again observed for two or three days. It is called quickening, not because the child at this time begins to live, for it is alive from the first, but because it can now move, or its motion is not till this time perceptible.

Nature would seem, by these early notices, to put the mother immediately upon her guard, that she might not disturb the tender embryo, by avoiding the occasions of either sudden alarm, fatigue, fever, or whatever might derange the equitable state of her health, and by attending to those means for its preservation, which are best suited to her particular constitution.

At the end of five months, the infant's size is nearly double what it was at the completion of four months, and the size is again nearly doubled by the commencement of the eighth month. At the full time, or nine calender months after conception, the ordinary size of the child is twenty inches in length, and seven pounds avoirdupois weight. But there are deviations from this standard. Some do not exceed sixteen or seventeen inches in length, and five pounds in weight; while others weigh nearly fourteen pounds, and measure above twenty-four inches. This difference in size and weight renders it extremely difficult, and it may be said impossible, to determine, in many cases, whether the infant have attained to its maturity or not. The ordinary marks of hair on the head, nails on the fingers and toes, usually depended upon by those unaccustomed to consider this subject, are quite fallacious; and although there be certainly marks by which it can be unequivocally determined when the infant has not exceeded the sixth month and a half, it would be an imposition on the credulity of mankind to allege, after the seventh month, the exact age of the infant could be ascertained by its general appearance, or its size and weight.

To protect the child, while in the womb, from the numerous accidents to which it might be exposed from the exertions or imprudencies of the mother, a most simple and effectual apparatus is provided. Not only is it enclosed in a bag, and surrounded by a quantity of water, but also is it nourished by means of a substance similar to a sponge, by which the blood of the mother does not run directly into its system.

The infant lies generally with its head down-most, that is towards the mouth of the womb, and with its limbs so bent and folded together, as to occupy wonderfully little room, like the chick in the egg just before it breaks the shell. When there are twins in the womb, each infant is included in a separate bag, and attached to its own after-birth. The head of the one infant lies towards the breach of the other.

By means of the apparatus thus imperfectly described, it may be understood that the infant, while in the womb, is admirably defended from external injuries, but it may not be very obvious how it is nourished, and by what contrivance its increase of bulk is accomplished. There is every reason to believe, that the after-birth serves the purpose; and accordingly, the quantity of blood sent to it always keep pace with the size of the child. Thus, in the early weeks, the vessels which run from the womb to the after-birth are not larger than the hairs of the head; while, in the latter months, many of them are as large as an ordinary writing quill, and the number of vessels always corresponds with the extent of its surface; for at every period of pregnancy, it is found, that a separation of the slightest portion of the after-birth is productive of the bursting of numerous blood-vessels.

That the derangement of the general system during pregnancy is produced by the new actions which take place, for the purpose of supplying the infant with the principles of life, is rendered probable, by the fact, that the breeding symptoms cease from the moment the infant dies, and by the additional fact, that they most commonly are less and less severe the more children a woman has. Accordingly, the ordinany complaints during pregnancy seem to be the immediate effects either of a disturbed action of the stomach and bowels, or of the formation of too much blood.

The most important circumstances to be attended to in the incipient months of pregnancy, is the costive habit of the bowels. Its prevention will subdue, if not wholly keep off, some of the troublesome complaints of the stomach, and will often guard, most securely against some of the exciting causes of early abortion.

Blood-letting, cautiously used; either to reduce a too plethoric state of the general habit, or to alleviate some morbid affection, is a salutary agent; but it is in general more frequently had recourse to in pregnancy, than it should be, upon very erroneous principles. Because a pregnant woman, though by one of the established laws of nature, is now obstructed, they conceive it proper to draw blood, that the constitution may be freed of an imaginary redundancy, not recollecting the process of pregnancy is going on, to employ the interrupted menstrual fluid, to the now essential purpose of affording growth and support to the increasing womb itself, as well as to its contents. All the temporary benefits to be derived from blood-letting may be most safely and permanently attained by a due attention to the diet, and to the state of the bowels.

Nothing can be of greater importance to a pregnated woman, than cheerfulness. They should therefore not be depressed by the relation of any unpleasant intelligence. Some women are often greatly disturbed by the account of misfortunes which have happened to others in the same situation. The impression made on a timid mind, may remain during the whole state of pregnancy. The general health may be thus impaired, and the approach of labour too much dreaded, so that both body and mind are in a less favorable state than they should otherwise have been. It should be considered, that though difficult, and dangerous cases now and then occur, they most commonly terminate well, if properly treated, and their number exceedingly small, when compared with the multitude of women who are delivered; and it is probable it would be still smaller, if the cautions above laid down were properly observed.

We would further caution women against having recourse to cordials, to raise their spirits when low. Their good effects are, at best, but temporary, while they are ultimately baneful to their constitution; and the use of a small quantity too frequently produces the necessity for a larger, until the mother and the unborn infant are injured by this pernicious practice. The best cordials for lowness of the spirits in pregnancy, are pure air, moderate exercise, and a light and cautious diet.

There is another affection of the mind of a different character, from which lowness and hysterical indispositions often arise, namely the force of a pregnant woman's imagination. This is often supposed to reach the infant in the womb and to occasion marks and other deformities. But every mother may feel confident, that Providence has better guarded the unborn innocent, than to have exposed it to injury, from every variation in the feelings of a parent. Even admitting the possibility of such an influence, it could only take place at a very early period after conception, while the embryo is in its most tender state; and even then it seems in a manner secured by nature against the above accidents, by the peculiar provision made for its defence in the womb; but it soon attains a sufficient degree of firmness to overcome any sudden or irregular impulse of the blood, from which alone such deformities, or other blemishes could happen.

The mother should, as much as possible, avoid every occasion of terror, on her own account, when any thing alarming occurs; but let her not fear that her child will be marked from thence, or, still less, from some hidden operation of a disappointed longing, which most generally does not take place until the above mentioned period is past.

Numberless examples could be produced to convince women, that the notion which most of them have, that figures of animals, or other extraordinary marks, are stamped on the face or the body of the fœtus in the womb, by the mere force of the woman's imagination, is a gross error. In every instance, it will be found, where a child is marked, the supposed cause of it has never been mentioned by the mother until after its birth; and when a woman has really been alarmed during her pregnancy, and ventured to foretel her child would be marked, she has as uniformly been delivered of her fears and her child together, for her prediction has never been verified.*

DISEASES OF PREGNANCY.

When we reflect on the several changes in the system which are produced by pregnancy, we cannot be surprised that it should be the source of disagreeable sensations, and of the cause of many diseases. No part of the human body is possessed of greater irritability than the womb; nor any part the increased irritability of which is more readily communicated to the system in general. The breasts are so connected with the uterus by their office, that every affection of the womb is immediately accompanied by some change in the breasts.—Next to the breasts, the stomach most readily sympathises with the womb; and through the stomach, the head and the heart are very soon brought to participate in its changes and complaints.

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*Dr. Moore, in his "Medical Sketches," relates a case so strongly in point, attended with such singular circumstances, that it is worth mentioning here. "A lady who had a great aversion to monkies, happened unfortunately, during the course of her pregnancy, to visit in a family where one of those animals was the chief favorite. On being showed into a room, she seated herself on a chair which stood before a table, upon which this favorite was already placed. Not naturally of a reserved disposition, and rendered more petulant and wanton by long indulgence, he suddenly jumped on the lady's shoulders. She was terrified and screamed; but on perceiving who had treated her with such indecent familiarity, she actually fainted; and through the remaining course of her pregnancy, she had the most painful conviction that her child would be deformed by some shocking feature, or perhaps the whole countenance of this odious monkey.

"The pangs of labour did not overcome this impresssion, for in the midst of her pains, she often lamented the fate of her unfortunate child, who was doomed through life, to carry about a human soul in the body of an ape. When the child was born, she called to the midwife with lamentable voice, for a sight of her unfortunate offspring, and was equally pleased and surprised when she received a fine boy in her arms.—After having enjoyed, for a few minutes, all the rapture from this change from pain and misery, to ease and happiness, her pains returned, and the midwife informed her that there was still another child. "Another," exclaimed she, "then it is as I have dreaded, and this must be the monkey after all!" She was, however, once more happily undeceived, the second was as fine a boy as the first.

Breeding Sickness. When it does not materially impair the general health, is to be regarded as a favourable symptom, because it certainly tends to prevent the formation of too much blood in the early months, which is one of the chief causes of abortion. It is generally sufficient to keep the bowels open. But when it becomes troublesome, it is necessary to interfere in time, otherwise alarming nervous complaints may be induced.

The most effectual means of affording relief in those cases are blood-letting, and gentle laxatives regularly administered. The application of mint, [*See Materia Medica*] or laudanum rubbed on the pit of the stomach, or administered in the form of an injection, has sometimes been of service. When sickness arises immediately upon first getting out of bed, a cup of tea or coffee often affords relief.

Costiveness Is a common attendant on pregnancy, and, if neglected, may produce serious consequences. Women in this situation should never allow more than one day to pass without having a motion. [*See Dyspepsia.*]

Heartburn Is commonly confined to the early months, but sometimes accompanies every stage of pregnancy. A tablespoonful of a fluid, prepared by mixing the white of an egg with a little sugar and water, so as to make it of the consistence of thin sirup, taken occasionally, has, in many cases, afforded relief. When the heartburn is attended with a constant desire to hawk up phlegm, the stomach should be emptied by a gentle emetic. [*See this disease.*]

Longings. Pregnant women have often unnatural cravings, or what are termed longings, which, however absurd they may appear on some occasions, are frequently involuntary. They should be gratified, if possible, as women are apt to miscarry from the anxiety these occasion, when they are not indulged. It will be found, when the appetite is feeble, and the powers of digestion impaired, the stomach often rejects particular substances, and retains others, which, though seemingly whimsical, are found to agree with it.

FAINTING FITS. Hysterical and fainting fits are apt to occur about the period of quickening, and, though sometimes attended with alarming appearances, are, in general, slight and of short duration. A repetition is to be prevented, if the patient be of a full habit, by keeping the bowels open, taking some blood occasionally, and putting her on a spare diet. But, if she be thin, and there is appearance of nervous delicacy, strengthening means, as the cold-bath, nourishing diet, cheerful society, regular exercise in the open air, with attention to the state of the bowels, are the best preventives. [*See this disease.*]

PALPITATIONS Is another distressing affection which some women are liable to during the whole of pregnancy.

The treatment of those nervous complaints must be varied according to the constitution and situation of the individual, but, in general, invigorating diet, moderate exercise in the open air, keeping the bowels regular, avoiding every thing that disagrees with the stomach, and whatever can agitate the mind, will render the attack less frequent. [*See palpitation of the Heart.*]

LOOSENESS. This may occur during pregnancy, and is to be treated just as at any other time. [*See Diarrhœa.*] However, it may be necessary to observe, women of full habit, especially in the early stage of pregnancy, should be very cautious in checking it suddenly, as an immediate overflow of blood to the womb may be the consequence; and because such discharges are sometimes the effects of an effort of the constitution to throw off some oppressive load.

DIFFICULTY OF URINE. In some cases, during pregnancy, there is great pain or heat in making water. This is often accompanied by a most troublesome itching at the neck of the bladder, and neighboring parts, with fever. In this case it will be proper to bleed, to keep the bowels open with some cooling laxative, to drink freely of some diluent liquors, and to wash the parts three or four times a-day with lead water, or apply a sponge, wet with cold water, to be frequently renewed.

Another more serious affection is a suppression of urine, at the same time that the stools are also obstructed. It chiefly takes place between the third and fourth month, and is attended with much pain in the lower part of the belly, owing to the distention of the bladder, and a feeling of bearing down, like the latter end of labor, with a desire to go to stool.

This complaint consists in a change of the position of the womb, which is turned nearly upside down, and is sometimes brought on suddenly by a fall, sudden exertion, or straining at stool, but much oftener by retaining the water too long.

Pregnant women, therefore, should, on no account, place themselves in situations which may lay them under restraint in this respect, and carefully attending to every call is essential to their safety. When the womb has descended very low, the os tincæ will be found to protrude the external orifice. In this case the complaint may generally be removed by pushing the womb up into the pelvis, and supporting it there while the woman discharges her water. The reduction may be effected by the patient placing herself on her hands and knees, and then passing two fingers of one hand into the vagina, and a finger of the other into the rectum, by which means it is possible sometimes to succeed. But even this assistance may be rendered unnecessary. by trying the effect of different postures, by laying on her back, with her hips raised, or kneeling on the floor, with her elbows resting on a pillow, or by lying on either side, either of which attitudes may relieve the pressure on the urethra.

In all cases of *strangury*, especially if the woman be of a full and plethoric habit, flushed and heated, she should lose blood according to the urgency of the symptoms. The bowels should be fully opened by copious injections or mild laxatives. She should take mucilagenous drinks, and apply warm fomentations externally, or sit over warm water. These remedies, when the suppression is only partial, will generally afford relief; but, whenever a total suppression takes place, the patient should keep gum-arabic in her mouth, and avoid drink of any kind as much as possible, until she has been relieved; and, if she does not succeed soon in her endeavors, recourse must be had to the catheter without delay. When the womb increases in size so large as to rise out of the pelvis, these distressing symptoms are relieved.

Too much caution cannot be given to pregnant women on the subject of the retention of their urine. Every moment's delay increases the difficulty, and an hour's neglect may lay the foundation of the most painful and distressing complaint.

Incontinence of Urine. In the end of pregnancy there is sometimes an incontinence of urine, or the woman is obliged to void it frequently, but has no pain. This often proceeds from the pressure of the child's head on the bladder, and is considered as a favorable sign of a natural labor. It can only be moderated by frequent horizontal posture, and its bad effects prevented by attention to cleanliness, and the use of a thick compress of linen or sponge.

Swelling of the Feet. It is usual during pregnancy, especially in the latter end of it, for the feet to swell. It is the effect of the large womb preventing the ready return of the fluids from the lower extremities. But, when the swelling extends over the knees, and more especially when it appears on the upper parts of the body, and where it does not entirely subside after having been a few hours in bed, it is to be regarded as a very serious complaint.

In the slight degrees, which happen chiefly during a first pregnancy, or when the womb seems much distended, or when the woman is rather relaxed, the occasional horizontal posture when the swelling is troublesome, with spare diet and an open state of the bowels, are all that seems necessary. But, in the serious degrees of the complaint, it is generally found that blood-letting, to a pretty considerable extent, and repeated purgatives, can only prevent the dangers which might ensue either during labor or after delivery. A different kind of swelling of the legs proceeds from an enlargement of the veins. The feet are not necessarily swelled, but along the inside of the legs, towards the knees, is a chain of knots of a blue colour, disappearing by using friction after lying down. This is relieved by applying a roller, with a moderate degree of firmness, but not so tight as to give uneasiness, or affect the circulation.

Inability of Sleeping. Inquietude and inability to sleep prove troublesome complaints towards the latter period of pregnancy; the patient being obliged to rise frequently through the course of the night, in order to expose herself to the influence of cool air. Nothing affords so great relief in cases of this nature, as bleeding in small quantities, with the occasional use of some cooling laxative medicine. Opiates are never attended with advantage in such conditions.

Pains. Often occur about the back and top of the thighs in the early part of pregnancy, and frequently is brought on by walking rather more than is proper. This requires a state of strict rest for some days, and the part to be rubbed with the anodyne liniment, [*See Dispensatory*] or if the pulse be full and the patient strong, some blood should be taken away.

Another kind of pain effects the back alone, and is of an aching nature, with a feeling of weakness. This is often relieved by the shower-bath, and the application of a strengthening plaster.

Towards the latter end of pregnancy, colic pains are often so severe as to resemble the throes of labour. If they be not preceeded by, nor attended with, costiveness, they may be easily remedied by opiates, and a proper regulation of diet.

In consequence of the stretching of the muscles, some of the fibres may separate, so as to allow part of the intestines to be pushed out beneath the skin; or this may take place at the time of delivery, and a pretty large swelling arise on some part of the belly. If the opening be large, the bowel is easily pressed back, but starts out and renews the swelling whenever the woman walks or even attempts to rise. This is called a rupture, and it may also take place at the navel, &c. The bowel is to be reduced and kept in by a well adapted but easy bandage, and costiveness is to be prevented. When the woman is in labour, and has forcing pains, it is often necessary to apply the hand to the part to keep the bowels from being strongly forced out, and after delivery, pressure must be immediately made, otherwise faintishness may be produced.

When the integuments of the belly become cracked and sore from over-distension, nothing is so effectual as a frequent use of warm sweet oil by friction.

Cramps. Women near the end of pregnancy are subject to cramps in the legs, the thighs, &c. which occur most frequently when lying in bed. They are occasioned by the pressure of the womb; and, therefore, like the other complaints depending on the same cause, they do not entirely cease till after delivery. In slight cases, change of posture affords almost immediate relief, when this fails, rubbing with a flesh brush or flannel, or the application of cold vinegar, opodeldoc, or anodyne liniment to the affected parts, are the best modes of procuring relief. When the stomach is affected, the same remedies as advised in cramps of that organ are to be employed.

False Pains. Many women are afflicted, long before their confinement, with pains so nearly resembling those of labour, that they often are mistaken for them. They are known by the name of *false pains*. They may affect the back, and come on with regular intermissions, and are peculiarly apt to occur during the night. They may be distinguished by being rather more irregular and shifting than those of labour or being more early attended with a pressing down. They are also usually accompanied with griping or wind in the bowels, or some difficulty in making water. In such cases, confinement in a horizontal position, bleeding, if plethoric, laxative medicines, if costive, and administering small and frequent doses of some opiate. until the patient finds ease, will be necessary. They are sometimes produced by worms, which are removed by giving an injection of strong decoction of camomile flowers, with salt, and using laxatives. Occasionally they affect the side chiefly, and are accompanied with a great motion of the child. Rubbing the part with anodyne liniment sometimes does good.

Shivering not unfrequently occurs in the end of pregnancy, especially in the night time; and as labour sometimes begins with this, it creates an unfounded belief that delivery is approaching. It is either unattended with pain, or the pain is irregular, affecting chiefly the bowels or sides. It goes off by taking twenty to forty drops of laudanum, in a glass of warm tea or thin grual.

CONVULSIONS. Are usually preceded by some symptoms which indicate their approach, such as a sense of fulness or heaviness in the head, severe or even excruciating headach, dimness of sight, or appearance of substances floating before the eyes, sometimes dark, sometimes of a fiery brightness. They may also be preceded by cramp in the stomach, attended with dreadful sickness. They are likewise to be apprehended if the face and arms be swelled in the same way as feet are in ordinary pregnancy.

At whatever period of pregnancy convulsions take place, we uniformly find, that if they are repeated, and do not prove fatal, they bring on labour, or at least open the mouth of the womb. But there are many instances where, by proper measures, the repetition of the fits have been prevented, and the patient has safely gone to the full time.

A knowledge of the causes of convulsions cannot be too widely diffused, as their occurrence may, in more than the majority of cases, be prevented. The formation of too large a quantity of blood, and an increased susceptibility of impression of the nervous system, occasion the tendency ot this disease. When these exist in any considerable degree, circumstances suddenly brings on the fits, which in any other condition of the body have little influence, such as over fatigue, fright, distress of mind, irritations of the stomach or bowels, over-distension of the urinary bladder, or obstruction to the passage of the blood through the belly and lower extremities, in consequence of the pressure of the enlarged womb. The immediate cause of the fits is an overflow, or too great determination of blood to the vessels within the head.

These facts explain the necessity for so regulating the diet and exercise during the latter months of pregnancy, as shall prevent both too great fulness of the habit, and also impaired energy of the nervous system.

Under proper and active management, convulsions are found to be in general more alarming than really dangerous. The frightful appearances which attend such cases having paralysed the exertions of practitioners, may perhaps account for the unfortunate event in many cases.

The practice consists chiefly in evacuation. The patient must be instantly bled, and the bleeding must be repeated once and again, if it do not prove at first efficacious. A prodigious quantity of blood has been taken away with advantage, and has been the means of saving life.

Two quarts of blood have been drawn off in the course of twenty-four hours under these circumssances, and with a happy effect.

The bowels are also to be opened immediately by an injection of soft soap dissolved in warm water, and then giving a strong solution of Epsom salts, or an infusion of salts, senna and manna, every hour or two, until copious evacuations are produced. After the first bleeding the head should be immediately shaved, and a blister of considerable size should be applied to it.

When convulsions are dependant on an irritable or excitable state of the nervous system, it is not necessary to use the lancet so freely. It will be best after moderate bleeding to apply leeches to the temples, at the same time not to neglect the bowels, which should be kept perfectly open. If by these means the disease be checked, the camphorated mixture in its usual doses may be given to allay the nervous irritation. For this purpose, opium in the form of a clyster has also been recommended. Dr. Denman proposed that a clyster, containing six or seven grains of opium, should be administered under the supposition that, by putting a stop to the contractions of the uterus, the convulsive contractions in the other parts of the body may also cease.

The warm bath is strongly recommended by Dr. Denman among the means of preventing convulsions in women previous to, or during their, confinement. He also recommends the warm bath in labours rendered complex by convulsions, and this upon a long and extensive experience. He says that when convulsions have continued or increased, notwithstanding copious bleeding and the use of all other rational means, the patient may be put into the warm-bath, in which she may remain a considerable time if the convulsions are suspended while she is in it. In instances where a warm-bath could not be procured, or while it was preparing, he has directed flannels, wrung out of warm water, to be applied over the whole of the abdomen.

Dr. D. also observes, that he has seen the patient relieved from that state of irritation immediately preceding the convulsion, by dipping feathers in cold water and dashing it with force on the woman's face, as this roused her, and interrupted the progress of the fit. Where the further application of cold water is deemed necessary, and appears advisable, we may throw water over the patient's head, bringing this over the side of the bed, and holding an empty pail underneath to receive it. It should be done on the approach of the fit, which may be ascertained by attending to the vibrations of the intercostal muscles.

Discharge of Water. May take place at different times during pregnancy, especially in the two last months. The quantity is variable, and sometimes the discharge is accompanied or succeeded by irregular pains. When this is the case give a dose of laudanum, and afterwards some gentle laxative to prevent costiveness. At the same time the woman should remain quiet in bed. By these means she may go to the full time. If the water continue several days but trifling in quantity, a solution of alum or decoction of oak bark, should be injected up to the vagina two or three times a-day.

Discharge of Blood. May proceed either from the passage to the womb, or from that organ itself. In the former case, no bad effects can be dreaded; but in the latter one, the most serious consequences may ensue.

The immediate cause of a discharge of blood from the womb, during pregnancy, is the rupture of blood-vessels, by the partial or total separation of those parts which connect the child with the mother. This circumstance explains the difference of danger in the early and latter months; for in the former, the blood-vessels of the womb being small, are incapable of pouring out much blood; but in the latter, they are very large, and may discharge, in a short time, a great quantity.

The management of these cases must be varied according to a number of circumstances. Tranquility of mind, and confinement to bed in an airy room, lightly covered with clothes, are of great importance. A bladder two-thirds filled with cold water, or cloths wrung out of cold vinegar and water, should be immediately applied to the lower part of the belly. If the discharge continue in small quantities, accompanied with irregular pains, a dose of laudanum, or the anodyne clyster, should be administered. When it has suddenly been brought on by a fall, blow, or any great exertion, it is necessary to draw blood from the arm; but when the symptoms which threaten miscarriage have come on, it is improper either to bleed, or to give laudanum.

The languor of faintness, usually induced by loss of blood, frequently lead officious attendants to exhibit spirits or wine, as necessary cordials. As these generally increase the action of the blood vessels, they serve to promote and increase the discharge, and should therefore be strictly prohibited. In the latter stage of pregnancy, if the attacks be severe or repeated, nothing can save the mother and child but delivery, which must not be too long delayed in expectation of pains coming on, or of their becoming brisk, if they have already taken place.

ABORTION.

By abortion or miscarriage is meant the expulsion of the child at a period of gestation so early that it cannot live.

It is always accompanied with two circumstances, separation of the membranous bag, expulsive efforts, or contraction of the womb itself. The first is productive of discharge, the second of pains like those of labor. Sometimes the separation or detachment of part of the conception takes place before any pain is felt; on other occasions, the pain or contraction of the womb takes place first, and produces a separation. In the first of those cases, the symptoms of abortion take place suddenly, and are usually occasioned by fatigue, sudden exertion, or fright. In the second, the child is frequently dead for some little time before the pains come on, and there are particular feelings, and changes, which indicate that a miscarriage is likely to take place; as, for instance, the cessation of the morning sickness, the subsidence of the breasts, absence of motion of the child, a feeling of weight, or heaviness in the lower part of the belly, &c.

Causes. Violent exertions of strength, severe exercise, sudden frights, violent fits of passion, over-fulness of blood, profuse evacuations, excessive venery, former miscarriages, a diseased state of the uterus, general debility of the system, external injuries, and strong acrid and stimulating medicines, which are often taken for the express purpose of exciting abortion, and the death of the child.

Such criminal intentions to destroy the fœtus by artificial means can never succeed, unless the most violent effects are produced on the organs contiguous to the womb, which seldom fail to produce inflammation of these delicate parts, and occasion the death of the mother. Whenever, therefore, women commit such unjustifiable crimes to conceal the indulgence of irregular passions, their life is exposed to the greatest danger.

TREATMENT. When a woman is threatened with a miscarriage, there are two objects to attend to: the first is, to prevent it if we can; the second is, to manage it so that as little blood as possible be lost; and these are obtained both by the same means. With this view, the patient should immediately, on the first alarm, undress and go to bed, lightly covered, with a firm determination not to rise till the process be either checked or completely over. There should be little fire in the room though it be winter, and, in summer, the windows must be opened. Cloths, wet with cold water, should instantly be applied to the lower part of the belly and back; the drink must be cold, and every thing stimulating should carefully be avoided.

In robust habits, or when the symptoms have been brought on suddenly by some such cause as a fall or exertion, it is proper to bleed, and, in cases of sickness or great feebleness, to give a dose of laudanum, or, what is better, to administer the anodyne clyster. [*See Dispensatory.*] Opiates are useful in every case where we hope to prevent abortion, and must be repeated more often or seldom, according to the effect they produce. They are, however, improper in those cases where miscarriages must decidedly take place. Their tendency to occasion costiveness when employed must be obviated by clysters, or some gentle laxative medicine, such as calcined magnesia, epsom salts, or a little castor oil. If there be a continued but trifling discharge, great advantage may be derived from injecting, three or four times a-day, up the vagina, a solution of alum. Indeed, in all protracted cases, this is of much benefit. The solution ought to be thrown up pretty high, that it may reach the womb.

When these means produce not the desired effect, and along with the discharge of blood large clots come off, attended with bearing down, or pains in the back and loins, especially if the symptoms which precede abortion have appeared, there must be every probability that the threatening event cannot be avoided; and then we must endeavor to conduct the patient safely through the process.

In all cases during the last stage of pregnancy, where our endeavors to stop or repress the hemorrhage prove abortive, and the life of the woman becomes endangered by its severity, it will be advisable to deliver her as soon as possible. If the ovum be still entire, and the pregnancy considerably advanced, the expulsive action is to be excited by rupturing the membranes.

When the whole conception come away at once, the pain and discharge usually go off, but, if only the child come away, all the symptoms either continue and increase till the afterbirth come away, or, if they be for a time suspended, they are sure to return.

After the process is over, if the discharge be profuse, and do not stop on the application of cold water to the lower part of the belly, it will be proper to plug up the vagina, and this is best done by taking a pretty large piece of soft cloth, dipping it in oil, and then wringing it gently. This is to be introduced with the finger, portion after portion, until the lower part of the vagina be well filled. The remainder then is to be firmly pressed on the orifice, and held there some time for the effused blood to coagulate. In obstinate cases, previous to the introduction of the plug, we may insert a little pounded ice, or snow, tied up in a rag, if to be procured, but neither of these should be continued so long as to produce pain or much shivering. In addition to this mode of treatment, it will be advisable to have recourse to the astringent medicines as advised under the head of Immoderate Flow of Menses.

Regimen. Arrow root, tapioca, sago, panado, rice milk, constitute a proper regimen. If the process be protracted and the strength much impaired, the diet may be more liberal. In every case ripe fruit is safe and useful. The bowels are to be kept regular, and sleep, if necessary, is to be procured by an anodyne.

Prevention. It requires great attention to prevent abortion in subsequent pregnancies, whenever it has happened.

In all such cases, it will be highly necessary to attend to the usual habitudes and constitution of the woman, and to remove that condition which is found to dispose to abortion.

A woman that is subject to miscarriage, and who is of a full plethoric habit, ought to be bled just before the usual time of her miscarrying, and she should take the tincture of fox-glove twice or thrice a-day for two or three weeks. In robust habits, blood-letting may be repeated every fortnight during the second, third, or fourth months, but the blood should be taken from a small opening, and not much at a time, lest fainting be produced. The quantity and the repetition must depend on the constitution of the patient, on the particular symptoms in the individual, and on the effect produced by the evacuation.

She should likewise keep her body perfectly open with gentle aperient medicines, use a spare diet, and avoid all agitations of the mind. The sleep should be abridged in quantity, and taken on a mattress, instead of a feather bed. Regular and moderate exercise should be taken daily, being cautious at the same time not to carry it to the length of exciting fatigue.

In women of a weak, lax habit, bleeding would be highly improper; for such, a nutritive and generous diet, moderate exercise, and tonic medicines, will be required. And, along with nourishing diet, a moderate use of wine should be allowed, if it do not heat the patient, or otherwise disagree. The cold bath is of signal service in every instance where it is not followed by chilliness.

Until gestation be far advanced, it would be advisable for the woman to sleep alone, and strictly avoid every cause which is ascertained to be capable of producing abortion.

Women miscarry more frequently in the second or third month than at any other time, but some have a certain period at which they usually go wrong, and do not vary a week from it. In such cases, the woman should confine herself to the house, avoid the least exercise, and frequently recline on the sofa or bed, till that period be past.

When women miscarry repeatedly about the fifth or sixth month, and feel, previous to that accident, the symptoms of the child's death, and, at the same time, the child, when expelled, is putrid, some latent poison, which will probably yield to a mercurial course of medicine, may be suspected.

OF LABOUR.

Labour generally happens in about nine calendar months, that is, from thirty-nine to forty weeks. In some cases, this time is considerably shortened, and, in others, is certainly protracted. There are two methods of reckoning, viz. from the time obstruction takes place, and from the sensation of quickening. If the former be depended on, the date of conception should be taken at a fortnight before the obstruction, if the latter be preferred, five calendar months may be allowed from the time that the movement of the infant was distinctly perceived.

There are three different steps in the delivery of a child: First, the mouth of the womb must be gradually opened; second, the child must be expelled; and, third, the after-birth must be thrown off. The first of these effects must be accomplished by the repeated contractions of the womb, which preduce sharp or grinding pains. The second is fulfilled by more forcible efforts, productive of bearing down pains, which, at last, increase to great severity. The third takes place a short time after the child is born, and is attended with very slight pain.

These pains proceed from the attempt made by nature to dilate the mouth of the womb, and they must continue until this be accomplished. The complete dilation is assisted and rendered both easier and frequently more speedy, by the protrusion, through the mouth of the womb, of part of the membranous bag, which contains the child and the water. The degree to which it is pushed out of the womb, during a pain, varies much in different cases. Sometimes it forms a very slight projection, at other times is very bulky, being little less than the child's head. When the membranes begin to be pushed the water is said to "gather."

The mouth of the womb being considerably opened, efforts are next made to press down the child, or to empty the womb. These produce a change in the pains, which are attended with a little inclination to press down. This gradually increases, and, at last, the sensation of bearing down becomes very strong and irresistable; and it is observed, that, though the pains are strong and forcing, they are productive of less complaint than those which, in the beginning of labour, appeared to be less served. There is a great variety in the duration of this part of the process. It is sometimes gradual and slow, in other cases sudden and rapid. The pains may be strong and forcing, and have very little interruption, or they may come on at very regular periods, with complete intervals of ease.

During this period the membranous bag, in which the child lies, usually bursts, and the water which it contained is discharged. This event is followed by an increase of the pain, which becomes more forcing, and the spirits of the woman rise in proportion. At length the head of the child comes to the birth, and, by repeated efforts, is at last expelled. This is followed by the gradual delivery of the body. After an interval of ease, one or two slight pains are felt, which serve to throw off and expel the after birth. The duration of this process is various, but it is generally longer in a first child than afterwards. This is particularly the case with regard to the *second stage*. Some women are uniformly expeditious, others always tedious. Some have the *first stage* slow, and the *second* quick; some have the water discharged early, others not until the child is born. Some have much sickness, or retching, or shaking, others none at all. In short, there is great variety in these respects with different women, or even with the same woman in different labours. In a natural labour, the whole process is concluded within twenty-four hours after its commencement, often in a much shorter period.

PROGRESS OF LABOUR.

When a woman, after a preceding day of ease, an unusual activity, about the period of her reckoning, begins to feel some restlessness about her, with occasional pains in her loins and side; if she further perceive that the bulk of her belly has fallen, that the motion of the child has not been for some time so sensibly, frequently, felt, and that she has a nervous hurry of spirits upon her, with a feverish glow of heat, she may then conclude that nature feels an inclination to prepare her for the termination of her pregnancy.

When labour has actually commenced, the bed on which the patient is to be delivered should be properly prepared, that it may not remain wet and disagreeable after the delivery. It should be placed in such a situation that the room may be ventilated, without the patient being exposed to a current of air. The mattress is to be put uppermost, as being more comfortable than a feather bed when it is not daily made up. A folded blanket, or dressed sheep skin is put next this in order to prevent it from being wet and soiled. Over this the undermost bed sheet is thrown, and the bed made up as usual. Afterwards, a sheet, in five or six folds, is laid across the bed, and these being removed when the child is delivered, and the woman is laid up, she finds herself clean and dry, without further trouble.

Every thing ought to be in readiness before it can possibly be needed, particularly the baby-linen, and such articles of dress as the mother may require. The dress of the woman, during labor, ought to be as light and simple as possible, and so prepared that it may not be necessary to disturb them soon after delivery by a change of apparel. When this is properly managed, they avoid an unreasonable fatigue, and the hazard arising from linen which may not have been cautiously aired. Little things are often of great importance, and are sometimes found so when it is too late.

Premature labour is sometimes threatened by pains, which produce, for a while, some real change in the womb sufficient even to give the practitioner just reason to expect that they will terminate in the delivery. But things again recover their pristine state, the alarm of nature subsides, and the woman proceeds in her pregnancy, for several days longer, and sometimes for weeks.

As the change in the womb above mentioned does certainly occur, even on a false alarm, it should put young and female practitioners on their guard, lest they promote labour too hastily, either by general treatment, or any manual operation; for these only would fruitlessly tease the patient, when the judicious exhibition of an anodyne would do every thing that can be wished for.

When in consequence of irregular premature pains, the membranes containing the water with which the child is surrounded have been broken before labour has really commenced, it must be expected soon to take place, though if the pains should have entirely ceased, on the discharge of the waters, it may be delayed for some days; but it most frequently happens within twenty-four hours. There is nothing in this circumstance alarming. It may occasion the first part of labour to be more slow, but not in any degree less safe in the end. It arises wholly from the fineness of the membranes, which contain the waters, and which must rupture in every labour, at some period or other, and hence the waters are unexpectedly discharged, in a sudden manner, without the least preceding pain.

In a slow labour, especially if it be the commencement, the time commonly spent in the lying-in apartment might, with the more propriety, be passed in the usual domestic habits. It would serve to lessen the too anxious expectation of a speedy delivery, as well as to prevent the impatience of the attendants, both of which are often improperly indulged.

A sensible woman should always consider that, in a slow labour, she may be afflicted with many distressing, or what have been called false or spurious pains, but there are very few by which nature does not mean some good in the end. She must, therefore, give her mind to patience, as all unnecessary interference would rather retard than assist the labour, and will only be employed by the designing or unskilful.

In the first stage of labour, the bowels should, if necessary, be emptied by means of a clyster, or a dose of some gentle aperient medicine. This is attended with several advantages; it renders delivery easier, and sometimes promotes it sooner. All heating drinks and stimulants are carefully to be avoided, as they increase the natural tendency to fever which women have at that time, and the temporary vigor they induce is soon followed by a great degree of langour, that retards the delivery.

Violent agitations of the body must be carefully guarded against, that the waters may not be discharged prematurely, which might be productive of the worst consequences. For these reasons the frequent interference of the practitioner in the beginning of labour, except where there is some unusual resistance to the opening of the womb, or the water has drained off too early, might do much harm, and could be attended with no good effects. At that period no medicine, or other expedient for increasing the force of the pains, should be prescribed, as the more slowly the passages are enlarged the less injury will the patient suffer. In every instance she should be kept quiet and cool, though she ought not to be confined to one position. She may be allowed to stand, walk, or sit, or remain in bed, as most agreeable to her feelings, but she ought, by no means, to stand so long, or walk so much, by way of forwarding the labour, as is productive of fatigue, and, after the pains become very frequent and pressing, it will be, in general, most prudent not to come out of bed.

Second Stage. When the first stage is nearly completed, the woman should be placed on her left side in bed, with a folded pillow between her knees.

The bearing down pains, by which the child is forced through the passage, should be the effort of nature alone, and ought not to be assisted by the exertions of the mother: for, in that event, either the delivery might be hurried on before the passages are sufficiently prepared, or the woman would be so much worn out that she could not undergo the necessary fatigue that attends the complete expulsion of the infant.

This important caution cannot be too strongly inculcated: for inattention to such conduct, and the impatience which women in such situations cannot perhaps avoid, often make a labour difficult and painful, that would otherwise have been natural and easy.

Voluntary bearing down must be particularly guarded against at the time when the head of the child is only prevented from being born by the soft parts at the outlet of the basin: for, if the delivery then be hastened, these parts may be readily torn. The utmost attention of the practitioner is indispensably necessary to prevent so unfortunate an accident, in every case where, from the acute feelings of the patient, violent bearing down at that period cannot be resisted. When the child's head presses against the perinaum, it should be supported by gently pressing with the hollow of the hand during the pain, to prevent its tearing.

After the head of the child is excluded, the woman should be allowed to enjoy, for a little time, the temporary relief she feels, and therefore the body ought not to be immediately taken out with force, as is often done: for, besides the injuries which may be occasioned by not allowing the patient a little rest, the extraction of the after-birth will be thereby rendered difficult. Two or three minutes may therefore be allowed to elapse before the body be drawn forward.

If the patient have a rapid labour, and the midwife is at a distance, she ought to keep constantly in bed, and refrain as much as possible from bearing down. If the child should be born before assistance is procured, the most experienced woman present should take the navel-string between the finger and thumb, and, so soon as she finds the pulsation in the cord stopped, tie a string firmly near the navel, and apply another ligature about three inches from the first, and cut the cord between these; or, if she be afraid to do this, the child must lie beside the mother till the midwife comes, taking care that the face be uncovered, to permit of breathing.

We will now suppose the woman is just safe delivered of her child, and that a complete cessation of the regular pains has followed. She must now endeavor to calm that disturbance of the whole frame, which, added to her anxiety of mind before the delivery, had excited a great degree of heat and perspiration, especially if it should have been her first labour, or one attended with some unusual difficulty. In this state she must not let herself chill or cool too fast. It may, perhaps, have been necessary to throw off the bed-clothes, during the last hour or two; if so, they should immediately, on the birth of the child, be lightly placed over her again. She may now moisten her mouth with a cup of tea, grit gruel, or barley water, for either of which she will feel desirous, if she has not been frequently taking of one or the other during the latter part of her labour; but they must be given her without wine or brandy. If she feels herself disposed to sleep, she should indulge it; at all events, she should keep herself quiet, and not encourage conversation. For it may be observed, that, in general, the mind of a woman newly delivered of her first child, is so occupied with the novelty, as well as the anxiety of her situation, that her attention is long kept alive, and therefore she can scarcely sleep, though exhausted by the fatigue of her labour.

In the third stage. The midwife must carefully attend to the degree and force of contraction, which the womb is disposed to take on, immediately, or soon after, the birth of the infant. The experienced practitioner will, indeed, have a presentiment, even while it is coming into the world, of what is likely to take place afterwards, from the manner in which the expulsion of the infant is completed. This should be effected slowly, as we have already observed, because such a practice favors that kind of action of the womb necessary to detach the placenta. Premature or active endeavors to loosen it, must, however, be avoided, if its separation should not readily take place, by the seasonable contraction of the womb. Let the operations of nature be watched, and she will prove the surest guide, though in this part of the delivery, she ought never to be wholly depended on.

We generally find, when there has not been any sudden or hurried delivery of the infant, the after-birth is soon expelled without any assistance.

The vessels which passed from the womb to the after-birth would, when this was separated, pour an increased quantity of blood, did not the womb contract so much as to diminish their size and compress their orifices. This contraction both expels the after-birth and prevents flooding. When, therefore, the after-birth is expelled, we have an evidence of the existence of that state of the womb which ensures the safety of the mother.

A woman should, however, avoid expressing any impatience about this, as it might induse some practitioners to use that despatch which many have done, that the patient or her friends might not insinuate that they were a long while in bringing away the after burthen. This kind of censure is too frequently passed upon the just conduct of the midwife, from the improper prejudice too often indulged in favour of a speedy delivery of the placenta. Women are apt to deem that practitioner most skilful who is the shortest time in finishing that part of her labour. Fatal, therefore, have sometimes been the consequences of this ill judged management, particularly among the female practitioners.

It is a mistaken idea, that in general some *external* mechanical force is necessary in order to expel the placenta. We cannot, therefore, approve of the modes occasionally recommended, of coughing, sneezing, blowing on the back of the hand, or making general pressure over the belly, with a view of helping its descent, by any kind of tight bandage applied to the abdomen, immediately after the birth of the child.

There is a general action of the hand on the abdomen, which the patient herself may perform, and by which the uterus is tenderly excited to contract, and the placenta of course detached in the most favorable manner, that will be found more useful than a bandage, or any extraordinary exertions of the patient, for this purpose. But as this may not be necessary in every case, it must be left to the judgment of the practitioner to direct, with the proper caution to be observed in the applications.

We would further observe, that there can hardly ever be occasion for a woman to bear down during the delivery of the placenta. Indeed, on many occasions it must be carefully avoided, lest it should produce, or increase, a disposition to the *prolapsus uteri.* The throes, which take place naturally, are caused by the contractions of the womb; and with them alone the practitioner can, generally, in due season, safely bring it away.

When the effects of nature do not tend to disengage the secundines within an hour after the birth of the infant, the interference of art ought to be submitted to. For if it be not thrown off within a short time after the infant is born, it becomes putrid, and induces an alarming fever, from which few women have recovered. In assisting the expulsion of the after-birth, unless the practitioner wait for the contraction of the womb, that part may be turned inside out. This circumstance should be properly understood by all those who happen to be out of reach of regular assistance; for the patient's life, after an easy labour, may be destroyed by the rashness of an ignorant practitioner. By explaining, however, the case of danger, those who are prevented from being under the care of persons of skill, may thereby escape those hazards to which they might otherwise be exposed.

The after-birth is generally fixed to the bottom of the womb, and as the greater portion of the womb, at the full period of pregnancy, is not attached to the adjoining parts, if the navel string be violently pulled before the after-birth be separated, the womb must be turned inside out, the ordinary consequence of which is fatal.

When the grinding pains are felt by which the contraction of the womb is distinguished, the practitioner should assist by pulling gently the navel string during a pain, and by endeavouring to bring down the after-birth through the bason, in such a manner that its progress may not be interrupted by any of the neighbouring parts.

Until the after-birth is expelled, the patient and midwife should be attentive lest there be a great discharge, and if this occur, no time is to be lost in checking it. This is done by exciting the contraction of the womb, by the application of cloths wet with cold water, to the lower part of the belly and to the passage, or by pouring cold water out of a pitcher from a height on the abdomen; and also by the introduction of the hand of the midwife to stimulate the womb. Some do this with the sole object of extracting the placenta or after-birth, considering the retension of this as the cause of the flooding.

But this opinion is wrong, and the mere extraction of the placenta can only do good, so far as the introduction of the hand and the means used to effect this, serve to excite the action of the womb itself.

We do not approve of a free and indiscriminate use of greasy application, in the progess of labour. They are wholly unnessary in the first stage of it, and in the latter part they interfere with the changes which then take place naturally, and produce that mucus secretion by which the parts are most favorably lubricated, for the easy termination of the labour. But after the complete removal of the placenta, it will be proper to apply a small quantity of pomatum or fresh lard, to defend the parts from the acrimony of the ensuing discharges.

LABORIOUS LABOUR.

When the delivery is not completed within twenty-four hours from its real commencement, though the head of the child be forced foremost, it is styled *laborious labour.* It may occur under three different circumstances. First, the pains may be, from the commencement, few and weak, and the labour may, if left to itself, be long becoming brisk. Second, the pains during the first stage may be sharp and frequent, but not effective, in consequence of which, the power of the womb is worn out before the child has advanced far, or come into a situation permitting it to be expelled. Third, the pains, during the whole process, may be strong and brisk, but for some obstacle the delivery may be either greatly protracted, or rendered altogether impossible, without assistance.

Different causes may produce these states; such as general weakness of the constitution, particularly the action of the womb itself, premature discharge of the water, fear, impatience and strong passions of the mind.

When the first stage of labour is protracted, and the pains do but little good, a clyster has often had the happiest effect in exciting more brisk and productive action. In like manner, a change of posture, or walking a little in the room, has sometimes rendered the pains brisker. But whenever sitting or walking produces fatigue, or felt to be disagreeable, they certainly do harm.

The most powerful means we can employ for remedying some of those conditions, which give rise to tedious and severe labour, are blood-letting and the use of laudanum, either in the form of a draught or clyster. The states requiring or admitting of these it is impossible to explain here; but it may be of service to do away a prejudice which may exist against their employment, when they are necessary. Opiates are serviceable sometimes, as cordials or general stimulants; at other times they are beneficial by suspending the useless, but painful action of the womb, and thus allowing time for the strength to recruit, and these effects they produce more safely and effectually than any other means could do. They are also of efficacy in checking that irregular spasmodic action of the uterus, which gives much pain, and rather retards than forwards the expulsion of the infant.

With reguard to blood-letting, there is only one objection of any weight, namely, that it will weaken the patient; but, in reply to this, we observe, that if it have the effect of rendering the delivery more speedy and safe than it otherwise would be, it will rather save the strength by preventing unnecessary fatigue. It is also well known, that a much greater quantity of blood is often lost after delivery than would have been taken from the arm, and yet no bad effect whatever follows from it. When convulsions occur during labour, or in the end of pregnancy, six times the quantity of blood that would be taken in any other situation, are often extracted with present relief and future advantage. Last of all, the experience of different ages and various countries proves the safety of the practice. It is not a remedy newly introduced, the effects of which we are ignorant of, for it has been even the habit of some to bleed women in natural labour in order to render it still more easy and expeditious. Blood-letting is also a powerful means of preventing local inflammation, which may be excited by protracted labour.

In difficult labour we must always pay due attention to the state of the bowels, and we should also be very attentive that the urine be vioded regularly. There are some unfavourable positions of the head, which may be rectified by the finger without giving pain.

If, notwithstanding all our care, the labour be protracted until the strength be impaired, and the pains are ceasing; or, if the obstacle be so great as, during the course of labour, to make the head be fixed within the bones of the pelvis, and produce suppression of urine, or a tender state of the soft parts, with a sense of tightness within the pelvis, restlessness, giddiness, or pain in the head, severe pain or feeling of pinching, even in the absence of the labour pain, about the share bone, or other symptoms indicating that the powers of nature cannot any longer be safely trusted to, it will be necessary to have recourse to the use of instruments. These are never to be resorted to except in cases of absolute necessity, but it cannot be too strongly enforced on the mind of a patient who requires them, that, if she delay, after they have been advised by a practitioner of judgment and integrity, her own life, as well as that of her child, may be lost.

PRETERNATURAL LABOUR.

When any other part of the infant than the head is forced foremost during labour, the case is styled *preternatural*, or, in common language, a *cross-birth*. Where neither the head nor lower parts are placed next the passage, nature cannot, in general, accomplish the delivery; and, therefore, the life of the woman must depend on the position of the infant being changed. The operation by which this is performed is called, in the language of midwifery, *turning*, and consists in bringing the feet into the passage.

When the case is discovered before the water is drained off, the operation of turning may be had recourse to with perfect safety, provided the woman be in good health, and without occasioning much pain to the patient or trouble to the practitioner. But when, either from the restlessness of the patient, or from the improper interference of the practitioner, the water has been evacuated at an early period of the labour, the life both of the woman and infant must be exposed to considerable hazard. In this case the turning is not to be attempted till, by the administration of sixty or eighty drops of laudanum, the pains are suspended. A neglect of this rule may be followed by very serious consequences.

Dr. Denman relates three cases of the upper extremities presenting, and the delivery being partly effected by the spontaneous evolutions of the child. In the first case, the woman had been in labour during the whole night, and one of the child's arms was the presenting part; on attempting to turn the child, the pains were too violent to admit the introduction of the hand into the uterus. Imagining that the child was small, so that it might pass, doubled, through the pelvis, farther endeavors to turn were omitted, and. on waiting a little, the breech presented, and the head was the last part that was delivered. In the second case, the *presentation* was the same as in the first, and it was agreed on to turn the child; but the pains were strong and frequent, so that the action of the uterus was such as to forbid all endeavors that way. It was then agreed on to wait for the effect which a continuance of the pains might produce, or till they were abated, when the child might be turned with less difficulty. The pains continued and propelled the child lower in the pelvis, and in little more than an hour it was born, the breech being expelled, as in the first case. In the third case, the arm presenting, and labour gone on for some time, after which attempts were made during several hours to turn the child, whose shoulder strongly pressed upon the pœrinæum. At length, by the action of the uterus, the child was doubled and the breech expelled; after which the shoulders and head were extracted. In all these cases, the Doctor observes, that the women were at the full period of utero-gestation, and the children were of the usual size. More cases might be related, but these sufficiently prove the fact, that, in cases in which children present with the arm, women will not necessarily die undelivered, though they are not assisted by art. With respect to the benefit we can in practice derive from the knowledge of this fact, it may be observed, that the custom of turning and delivering by the feet in *presentations* of the arm, will remain necessary and proper in all cases in which the operation can be performed with safety to the mother, or give a chance of preserving the life of the child. But, when the child is dead, and when we have no other view but merely to extract the child, to remove the danger thence arising to the mother, it is of great importance to know that the child may be turned spontaneously by the action of the uterus. If we avail ourselves of that knowledge, the pain and danger which sometimes attend the operation of turning a child, may be avoided.

Some propose bleeding ad deliquum for abating the too strong contraction of the uterus, and, at the moment of fainting, to attempt delivery.

PLURALITY OF CHILDREN.

It has been supposed when women have conceived *twins*, there are certain symptoms before delivery by which that circumstance can be ascertained; but there are no sure indications of the existence of a plurality of children till after the birth of one child, when this takes place it is very easy to determine when any other remains. This may commonly be done without having recourse to the painful and indelicate means that have been proposed and practised: for, by feeling the state of the belly alone, a judicious practitioner can be very seldom mistaken on such occasions.

When only one child has been originally contained in the womb, that organ, soon after delivery, diminishes very much in size, while the bowels, which are kept out of their natural situation, in the latter months of pregnancy, immediately get forward to the fore part of the belly, and render it soft and yielding. But, when a second child remains, the womb does not apparently diminish in size. The intestines, therefore, remain behind and at the sides, and the fore part of the belly has the same hardness as before delivery. It sometimes happens that the pains advance rapidly, and the second infant comes very soon after the birth of the first. In such cases, all that the practitioner has to do is to be assured that the second infant is in a proper position, and to take care so to conduct the extraction of the after-births that no alarming discharge may follow their expulsion.

But, when the labor-throes cease, or become trifling on the birth of the first infant, the object of the practitioner should be neither to interfere before the woman have recruited sufficiently from her fatigue, nor to delay extracting the second child so long that the passages should become contracted, or the after birth of the first-born be separated. Inattention to this important rule has been the cause of the loss of many lives. In more than the majority of cases, no more than an hour should be allowed to intervene between the birth of both children.

If the delivery be conducted on this simple and obvious principle, although in many instances it becomes necessary to alter the position of the second infant, and in that way the woman must be put to a little pain, yet all hazard, both to mother and child, may be almost certainly avoided. It requires, indeed, considerable attention after delivery, to guard against loss of blood, which is a very common occurrence, where there had been a plurality of children in the womb.

FALLING DOWN OF THE NAVAL STRING.

A portion of the umbilical cord may be forced down, either naturally or in consequence of mismanagement. In the former case, it will be felt through the membranes at the beginning of labour; in the latter, it does not come down till after the waters are drained off.

When the cord is felt originally through the membranes, the patient should be kept very quiet, and in one posture, till the circumstances preparatory to delivery are completely accomplished, when the practitioner, by turning the infant, may probably be able to save its life.

But when the early discharge of the water has occasioned the protrusion of the cord, it is not always in the power of a practitioner to obviate the threatening danger without exposing the life of the patient to much hazard, which is a risk that ought never to be incurred for the precarious chance of saving the infant.

CONVULSIONS DURING LABOUR.

The precautions by which convulsions, during labour, may, in many cases, be prevented, have already been mentioned under the head of pregnancy, and the dangers to which pregnant women are exposed, when attacked with this frightful disease, have also been pointed out. But when it does happen in time of labour, the safety of the woman commonly depends on expeditious delivery; and, therefore, the proper means for accomplishing so important an object must be employed without delay.

If the mouth of the womb is in any way opened or distended, the midwife should introduce the hand in a gradual, manner finger by finger, assist the dilatation, and bring the infant into the world. Should the convulsions continue after the birth of the child, and the coming away of the after-burden, all that can be done is to keep the brain unloaded by topical bleeding, the bowels open by laxative medicines, and the irritability of the system counteracted by camphor and opium. A large blister may also be applied to the head, and small ones to the inside of each leg.

FLOODING DURING LABOUR.

Arises in labour either from an accidental separation of the whole, or more commonly from a part of the after-birth, or from the unusual place of attachment of that substance. When the discharge is considerable, there cannot be a question that the patient must be delivered either by turning the child or by the forceps, according to the stage of labour and situation of the child.

After the birth of the child, if the natural powers do not separate the secundines within an hour, the practitioner should also perform that duty.

When necessity obliges the practitioner to introduce a hand into the uterus, the back of the hand should be towards the uterus; and the hollow of the hand kept as close to the placenta or after-birth as possible in seperating it, that the womb may not be injured.

In some rare cases, the adhesion is so strong that it is impracticable to seperate the whole of the cake without tearing the womb. The portion that is left generally becomes detached in three or four days, and its expulsion may be promoted by the use of a stimulating injection. Such cases require the most serious attention, lest any putrid portion may be absorbed.

After these stages of labour are safely completed, flooding sometimes takes place. This is the effect of the womb not having become sufficiently contracted, and it requires different management in different cases. If the discharge be profuse, cloths soaked in cold water and vinegar, applied to the naked belly, or even cold water poured on the part from a height, should be had recourse to. But sometimes the flooding is not observable by the attendants, as the blood congeals as soon as discharged, and is collected within the womb and passages. This circumstance may be feared, if the woman becomes sick or faintish, or complain of ringing in her ears, or dimness of sight. In such cases the womb must be forced into contraction by manual assistance.

In all cases of considerable loss of blood, large doses of opium, frequently repeated, are found of the greatest service in supporting the living powers. [*See Immoderate Flow of the Menses—Progress of Labour, and Abortion.*]

MANAGEMENT OF CHILD-BED.

A child-bed woman, so soon as all the circumstances of her labour have been adjusted, may with propriety, consider herself as still in a state of health, and as requiring little more than the common cautions, and good management on all occasions necessary to preserve it.

The first hours after the delivery, provided some light nourishment has been taken, should be dedicated to quiet and sleep, and no person should be allowed to enter the patient's chamber, except such as are absolutely necessary. The chamber door, and even the windows, if the weather be warm, should be opened, and the room, in every respect, kept as clean and as free from any disagreeable smell, as any other part of the house.

The patient should often be supplied with clean linen, well aired; for cleanliness and free pure air, are essential in this situation; and upon the strictest examination, it appears that there never was miliary eruption produced without a sweat, nor puerperal fever without foul air. The heat of the room ought to be so tempered, that the patient may neither be chilled with cold, nor yet suffer from sweat or burning.

The strictest attention should be observed to have an evacuation daily by the use, if necessary, of mild laxatives, or by the exhibition of clysters composed of milk, oil and sugar, or of soap-suds. It is a security against fever and inflammation, and even forms one principal mode of relief when they occur. An equal regard should also be paid to get out of the bed as soon as they can, with propriety, and to set up as long as possible without fatiguing themselves.

If the lochia do not flow so plentifully as may be expected, or if they entirely stop, no regard need be paid to this circumstance, if the patient be otherwise as well as can be wished. We not only find this evacuation different in different women, but even in the same woman in different lyings-in, from which she recovers equally well.

Much mischief is often done by binding the belly too tight. If there be any occasion for support, a thin napkin pinned very slightly round the waist, is all that is absolutely necessary, and the sooner this is disused the better.

But little change takes place in the breasts, after the first months of pregnancy, until about the second day after delivery. Then it is usual to feel a great sensation of fulness in them, accompanied with a febrile irritation, which varies in different women, according to constitution and management; but in all is favoured by temperance, a cool regimen, and composure of mind.

The child should always be put to the breast early, before the milk can have stagnated in them, or they can have acquired any great degree of hardness. It will be beneficial both, to mother and child, if this be done a few hours after delivery; and this is most consistent with the operations of nature.

If the patient have not nursed any former child, the infant will probably meet with difficulties in fastening on the nipples. In this case some older infant should be applied, or it will be proper to have them drawn by some other means without giving pain.

Thick rings made of beeswax, and fitted very exactly to the nipples, are often preventives of sores, by keeping the nipples elongated. They should be applied immediately after the child has finished its suction, and be put on so that the ends of the nipples may protrude themselves through them. These rings, however, ought not to be used when the milk runs out in too great quantities.

If the woman do not suckle her child, no method should be used either to repel the milk, or invite it into the breasts. Nature will be certain to do her part. She is soon made sensible, that the blood determined to them is not wanted, and there will therefore be little further effort made on her part to continue it, and it will in the course of a short time cease of itself. A cooling cathartic, with a suitable regimen, will entirely supercede the necessity of any local treatment, and is all that can be required, even when a mother has suckled before.

No degree of fever in child-bed should be passed over unattended to, or be thought lightly of. Even the most serious are often slight at their beginning. Neither should any local pain, or tenderness, or fulness of the bowels, be neglected, lest they should arise from the incipient stage of some inflammation, which, if not checked at first by proper medicines or suitable regimen, might, in a short time, put on some alarming appearance. Let it be remembered, *that it is much easier to prevent diseases, than to cure them.*

The diet of lying-in women should be particularly attended to. All gross meats which might overload the stomach, or by heating the woman, prove a cause of fever, should be strictly prohibited. But every patient, after child bearing, ought not to be half starved, as some recommend. Proper regard in this respect should be paid to her habit, former manner of living, and present state. Too great indulgence, it must be remembered, is more to be dreaded than too much abstinence, though both extremes should be equally avoided.

The bad effects of confined or impure air are now most universally known; consequently, the propriety and necessity of having the bed curtains always open, of preventing many visiters from crowding the room, of removing as speedily as possible every thing which can contaminate the air, and of admitting occasionally the fresh air, by opening the windows and doors, must be obvious.

Women were formerly obliged to remain in bed for a certain number of days after delivery, by which they were much weakened and fatigued. In modern times the practice has passed from one extreme to another.

This circumstance should surely be regulated according to the strength of the patient. When the woman feels that she can easily undergo the fatigue of rising, which, in ordinary cases, happens about the second, third or fourth day, she ought to be taken out of bed that it may be properly adjusted. If she be made to sit upright, she will suffer considerable uneasiness; and, at the same time, by the bulky womb, (for that organ does not resume its natural state till two or three weeks after delivery,) pressing forcibly on the soft parts at the bottom of the basin, the foundation for a very troublesome and disagreeable complaint, viz. the falling down of the womb, must unavoidably be laid. She ought, therefore, to be placed in a position half sitting and half lying, when out of bed, as long as the womb continues enlarged, by which means these inconveniences will be avoided.

For the same reason, walking, even from one room to another, at least as long as the lochial discharge continues, and the womb is bulky, is highly improper. Many women boast that they have been able to go through the whole house within a few days after delivery; but they often find, at a subsequent period of life, by the complaints which they suffer, that they had little cause to be satisfied with their own prudence, or the attention of the practitioner who indulged them in such liberties.

DISEASES OF CHILD BED.

As there are certain natural causes of disease during lying-in, so there are certain disorders to which women of every description are liable for some time after delivery.

The most usual complaints which occur in child-bed are as follow, viz:—

Faintings. The languid state in which many women are, immediately after delivery, is sometimes succeeded by faintings. This is not dangerous whilst the pulse and breathing continue good, and there is no unusual discharge. In this case, the complaint may be attributed to the peculiar state of the body and mind of the patient at that time, and will be readily removed by the exhibition of a little wine, toddy, or any cordial. But when the faintings are attended with quick irregular pulse and cold extremities, the greatest danger is to be apprehended; for it will generally be found that they are the consequences of some violent injury, or of great loss of blood. In this alarming case, if there be a considerable discharge from the womb, a soft cloth is to be pressed firmly on the external opening, and pressure to be made at the same time on the lower part of the belly with the hand, to prevent the womb from distending with blood, and to excite its action. A large dose of laudanum or opium is also to be administered without delay. And the heat is to be preserved by the application of warm flannels to the stomach, hands and feet.

SHIVERINGS

Occur from similar causes to faintings, and sometimes in consequence of rash and sudden exposure to cold, after being heated with the exertion of labour. Nothing, in general, affords more speedy relief, than a tea-spoonful of spirits of hartshorn or laudanum in water. At the same time the ordinary means for restoring warmth, by the application of heated flannel, as recommended in case of fainting, ought to be had recourse to. If it should continue, the camphorated mixture [*See Dispensatory*] in doses of a table-spoonful every two hours, will be of service. This medicine, given as soon as the child is born, commonly prevents both shiverings and faintings in those who have been formerly liable to such symptoms.

AFTER PAINS.

For some time after delivery, the contractions of the womb frequently continue, and occasions pain, which in some cases are so violent as to resemble throes of labour. This complaint, termed *after-pains,* though productive of considerable uneasiness, is never to be considered dangerous.

In general they are most effectually relieved by a full dose of laudanum. When the pains continue after the exhibition of this medicine, warm flannels, or bladders two-thirds filled with hot water, should be applied to the lower part of the belly. The camphorated julep, in obstinate cases, will be beneficial, as well as clysters to open the bowels, and afterwards an opiate pill, or an injection of camomile tea, with two tea-spoonfuls of laudanum, should be administered.

LOCHIAL DISCHARGE.

An increased and sometimes a continual discharge, after delivery, is often the consequence of getting up too soon, or making some early exertion. When this evacuation continues beyond the ordinary time, it occasions weakness, and requires the early employment of means to prevent the train of nervous disorders, which commonly succeeds a profuse discharge of the menses. With this view, tonic medicines, as bark and elixir vitriol, &c. must be employed along with nourishing diet, a liberal use of claret wine, and such other means as may support the strength.

The importance of *cleanliness*, as long as the lochial discharge continue, does not require being pointed out: but when the evacuation has a bad smell, common attention in that respect is not alone sufficient; for unless the most scrupulous regard be paid to prevent its stagnation in the passage of the womb, excoriations or inflammations, with all its formidable consequences, will ensue. The nurse should, therefore, on such occasions, be directed to wash that organ by means of a syringe, twice or thrice a-day, with warm milk and water, or with an infusion of camomile flowers, or decoction of oak bark.

The lochial discharge is in some women very trifling, and may even stop very soon without any bad effect. But when it is suddenly checked by exposure to cold, or other causes, most painful consequences may follow, such as swelling of the belly, great pain, sickness and fever. In such cases the evacuation ought to be promoted by sitting in a tub of warm water, or by the application of warm fomentations to the parts, and the exhibition of some gentle evacuating medicine, and afterwards endeavour to determine to the surface by the use of Dover's powder, with warm diluent drinks.

MILK-FEVER.

The breasts are greatly distended for the first two or three days after delivery, and in some cases a considerable degree of pain and fever are occasioned. The best management in these cases consists in gently rubbing the breasts with a little sweet oil morning and evening, covering them with flannel, and keeping the bowels open with some gentle laxative medicine.

When the mother's health will not admit of suckling the child, she should have her breasts occasionally drawn, and every circumstance which can contribute to the secretion of the milk, should be carefully avoided. Great abstinence should therefore be enjoined, her body should be kept perfectly open with laxative medicine, and as little milk as possible taken. Ripe acid fruits ought to be used, which will assuage thirst, and by proving laxative, will assist to carry off the milk and prevent its secretion.

LACERATION OF THE PARTS.

The excessive dilation sometimes required for the exit of the infant, and the contraction which follows delivery, occasion a degree of soreness and of uneasy feelings that not unfrequently lead the woman to suppose herself torn. These feelings are removed by bathing at first with warm milk and water, and afterwards with warm spirits. But where the swelling is considerable, attended with throbbing pain, emollient poultices ought to be applied, and renewed every four hours, until suppuration takes place, and then treated in the ordinary way. [*See Abscess.*]

Women are sometimes really torn during the birth of the infant; which, in most instances, is the effect of mismanagement. Where the laceration is inconsiderable, little more than the ordinary management is required, as the process by which the passages are restored to their former state tends to reunite any slight separation of parts.

INVERSION OF THE WOMB.

There are two degrees of the inversion of the womb, viz: the partial and complete. The former, which is the more ordinary one, appears in the shape of a swelling as large as a child's head, protruded without the passages immediately after expulsion of the after-birth, accompanied with violent forcing and bearing-down pains, and followed by flooding, faintings, and urgent fruitless attempts to make water. This arises from a part, more or less, of that portion of the womb, which had extended, previous to delivery, above the bones of the bason, being turned inside out.

The other degree is so complete an inversion of the womb, that it is torn away from its attachments to the sides of the bason, the immediate consequence of which is instant death.

Such accidents can only arise from rash and ill-directed endeavours to extract the after-birth, by drawing down the navel string before it can be completely separated. But whatever be the cause, the part must be immediately restored, or the consequence will soon prove fatal; for its orifice will contract in this unnatural state, and so prevent the needful relief. Therefore, without delay, place the patient on her back, with her hips raised, and gently return the uterus into the vagina with three fingers, and then with the whole hand place it in its natural position; after which, clench the fist, and retain it there, until the uterus contract upon it; lastly, apply the bandages as advised in the case of falling down of the womb, and direct the patient to remain in bed some days.

SEPARATION OF THE SHARE-BONES

Is the effect of severe labour or of some former accident, or inflammation within the joint which connect these bones.—This affection is distinguished from every other, by the pain

Being uniformly increased or excited upon the slightest motion of the lower part of the body, and by feeling the share-bones rasp against each other when either leg is moved.

The treatment must depend upon the cause. Where these bones have been separated by a blow or fall, at a former period of life, they only require being held together by means of a broad belt, till the patient have regained strength. The cold bath, whenever it can be used with propriety, should be had recourse to, morning and evening, as it tends greatly to the accomplishment of that object.

SWELLED LEG.

This disease takes place at different periods after delivery, from the fourth or fifth day to the seventh week. It is ushered in with pain in the back, smart fever, and painful stiffness in the groin. Soon after these symptoms, the thigh begins to swell at the upper part, and gradually the swelling is extended to the whole limb, so that in a short time it is double the size of the sound one. It is rather pale coloured than red; and is called by some the *white leg*. It is hot, shining, very painful on being touched or moved, and at first it does not pit when pressed upon by the finger, and may be distinguished by the above marks.

By active treatment at the beginning of the complaint, its progress may be certainly stopped.

The bowels should be kept open by salts or cream of tartar, and a determination to the skin produced by Dover's powders or some of the diaphoretic medicines. [*See Dispensatory.*] Should these not have the desired effect in arresting the disease, a grain or two of calomel, given morning and night, until a slight affection of the salivary glands are excited, and afterwards the nitric acid will generally succeed.

Topical applications are also to be employed, as flannels wrung out in hot vinegar, and renewed as often as they become cold. Good effects have also been derived from the application of a strong solution of crude sal-ammoniac and sugar of lead in vinegar. When these fail to produce any good effects, surrounding the limb with a portion of English bran and sweet oil, with the addition of half an ounce of laudanum, or soft boiled turnips, and renewing it night and morning, will afford considerable relief. The best application, however, in such cases, when they can be procured, are the leaves of the thorn apple, scalled in vinegar; with which the limb must be thickly covered, and then confined by a flannel bandage.

Friction, with the anodyne or camphorated liniment, has produced some good effects, but the mercurial ointment, united with camphor, has been externally employed with more permanent advantage.

When the acute symptoms are over, and the limb remains weak, friction with the flesh brush is proper, and a roller should be applied with moderate firmness from the toe to the groin. The cold-bath is useful to re-establish the health. The diet, after the inflammatory symptoms have abated, ought to be nourishing; and sleep, when required, should be procured by opiates.

INFLAMMATION OF THE BREASTS.

This disease is easily known by the pain, hardness and swelling which accompany it. In some cases, the whole breast appears to be affected, in others, only one side, and in some the affection is small and superficial.

When the breast inflames, it is evident that the retention of the milk must, for a time at least, increase the pain.

The first object then should be to have the breast drawn, either by the child or some other means; but should the milk not come away readily, and the pain be increased thereby, further attempts must not be made, otherwise both the disease and the sufferings of the woman may be aggravated. A cooling diet and an open state of the bowels are necessary while the swelling continues. And it is better for the patient to remain in bed, as the weight of the breast, while in the erect posture, often increases the inflammation. The breast should be gently rubbed with a small quantity of sweet oil or unsalted butter, and poultices of crumb of bread and lead water applied. If the pain and hardness do not very soon go off by this application, warm emollient poultices, as milk and bread, with a little oil, or united with the leaves of the thorn apple, must be had recourse to. These poultices will not promote suppuration unless the inflammation has proceeded so far, that that process has already begun, and in this case the sooner it is produced the better.

If the abscess do not point and break soon, no good can be gained by delay: an opening should therefore be made, so as to evacuate the matter freely. This not only gives immediate relief, but prevents a further extension of the mischief. The milk and bread or flaxseed poultices must be continued for a few days, in order to remove the hardness, and then the part must be dressed, as in ordinary cases. [*See Abscess.*]

Indurations remaining after an abscess, may be frequently remedied by the application of a mercurial plaster or cloths, wet with the camphorated spirit, or rubbing night and morning the part, with mercurial ointment, united with a little camphor.

Sometimes after the abscess heals and the breasts seems to be cured, it swells a little, especially towards night. This is from weakness, and is cured by strengthening the constitution.

SORENESS OF THE NIPPLES.

The nipples, from the delicacy of their structure, are very liable to be injured by the action of the childs mouth in sucking, along with the irritation which the stagnant milk occasions, unless they be kept very dry. Women are subject to this complaint more frequently while nursing their first or second child than afterwards; for the nipples lose much of their sensibility by use.

In the treatment of this disease, the great object to be attended to is, to remove, as much as possible, every circumstance which can tend to irritate these parts. It is important to keep the nipple dry and cool, for which purpose rings of lead are generally worn. The nipple ought to be washed frequently with some gentle stimulating liquor, as brandy and water, or port wine, or a solution of alum or white vitriol, in proportion of fifteen or twenty grains to four ounces of water; these must be frequently varied, for the same lotion soon loses its effects. A saturated solution of borax, in vinegar or water, with the addition of a little honey, has been very beneficial to sore nipples.

In obstinate cases, the sores should be touched by means of a fine hair pencil, with a solution of blue vitriol, or the following liniment, which is highly extolled by Dr. Hamilton. Take of litharge and vinegar, each, two drachms, olive oil, six drachms, to be made into a liniment by rubbing the whole together in a mortar until it becomes of a flesh colour, and the consistence of cream. Washing the sore nipples with a decoction of the roots of wild indigo [*See Materia Medica*] is also celebrated as a valuable remedy in these affections.

As long as we are under the necessity of applying any medicines to the nipples of the mother, it will be prudent not to suffer the child to suck her. Where this cannot, however, be dispensed with, the part should be well washed with a little warm water, each time, previous to giving the child the breast.

To prevent the sore from being aggravated by sticking to the woman's clothes, a little cup made of wax may be laid over the nipple, which is the part most apt to suffer. If only one nipple is affected, the child may be confined to the other; but if both are affected, and the pain occasioned by its sucking is too great to be borne, the woman must then desist from the duties of a mother until the excoriations are somewhat healed, taking care, however, to have the breasts drawn regularly twice or thrice a-day.

In many cases where the woman has never nursed before, the nipples at first are not sufficiently prominent to afford a proper hold for the child. In such cases the breasts should be fomented by flannels dipped in warm water, and then, by gentle pressure on the sides of the breasts with the hands, the milk is pushed forward.

At the same time the pressure is made, the nipple should be drawn out by a breast pipe, and the instant the glass is removed, the child being put to the breast, will keep it out by sucking until satisfied. After the operation has been repeated two or three times, the child, except in extraordinary cases, will find no difficulty in sucking.

Those who have been subject to sore nipples, should endeavour to diminish the sensibility of these parts, by applying to them, for several weeks previous to delivery, cloths dipped in alum water, in strong spirits, or in the pickle of salted meat boiled, which latter has been recommended as an infallible specific for that purpose.

When little sores appear in the brown circle surrounding the nipple, and correspond with similar appearances in the child's mouth, or other parts of the body, there is just cause to suspect some latent poison lurks within the system which more than probable will require a mercurial course of medicine to subdue.

INFLAMMATION OF THE WOMB.

Commonly occurs about the second or third day after delivery, though in some instances later. The existence of it may be ascertained by pains in the lower part of the belly, which are greatly increased, by pressure, a constant fever, with a quick hard pulse, and a great prostration of strength. The lochial discharge is very early suppressed, and the secretion of milk very much diminished.

It is commonly attended with sickness. It often happens that the woman can only lie on her back, and on turning to either side, she feels a painful heavy mass fall to that side, and at the same time an excessive pain in the loin, kidney, and groin, of the opposite side.

Many causes tend to induce inflammation of the womb, such as abortion, difficult or tedious labour, the exhibition of heating and stimulating drinks, exposure to cold after delivery, &c.

As this disease is very rapid in its progress, it calls for the earliest attention. Blood-letting is of great importance in the incipient stage, and may be repeated in ten or twelve hours if the effect produced and the constitution of the patient would justify it. Although strong active purges would be highly improper in this disease, yet it is necessary to preserve the regular motion of the bowels by giving, occasionally, the cathartic mixture or Epsom salts in small doses. Emollient and aperient clysters should be frequently administered, as they not only unload the intestines, but likewise act as fomentations. Medicines which determine to the surface, as Dover's powder, or diaphoretic drops, with the saline mixture, are also highly serviceable.

To remove the tension, and alleviate the pain and soreness, flannel cloths wrung out in a warm decoction of camomile flowers, or any bitter herbs, with the addition of one fourth of spirits, to which a little laudanum may also be added, should be kept pretty constantly applied to the lower part of the belly, and at bed time it may be rubbed with the camphorated or volatile anodyne liniment. [*See Dispensatory.*] In using fomentation, due care must, however, be taken that they are not applied so wet as to run about the bed, and thereby occasion inconvenience to the patient.

Opiates are necessary to procure rest, but they should not be employed until the inflammation has been subdued by blood-letting, and aperient and diaphoretic medicines.

Too much caution cannot be observed by women in guarding against any exposure to cold after delivery, as they are thereby apt to bring on diseases, which, if they do not prove quickly fatal, not unfrequently leave effects behind them, of which they will be sensible the whole future period of their lives.

PERITONEAL INFLAMMATION

Frequently occurs in women after delivery, and is produced by the same causes which give rise to an inflammation of the womb.

In some cases the inflammation attacks only a small portion of the membrane at first, and is afterwards communicated to the whole at once. The patient is usually seized with rigors and shiverings, thirst, fever and an accelerated pulse, and soon feels considerable pain, with soreness, either in a particular part of the abdomen, or over the whole of it. The uneasiness and pain increasing rapidly, the abdomen becomes puffed up and swelled to a size nearly equal to what it was before delivery. From the inflamed state of the parts, and the exquisite pain which prevails, the very weight of the bed-clothes become irksome and insufferable; and in order to support it, the patient is obliged to lie on her back with her knees bent in towards her belly. She is, moreover, incapable of bearing the least motion.

In the cure of this disease, nearly the same mode of treatment which had been advised for an inflammation of the womb must be adopted. Bleeding from the system to about sixteen or twenty ounces should therefore be had recourse to at a very early period, particularly where the patient is of a robust pletohric habit, and with such it may be necessary to repeat the operation within twelve hours.

To empty the bowels freely, it will be necessary to employ active purgatives from time to time. Fifteen or twenty grains of calomel, with four of ipecacuanha, followed by an infusion of senna and manna, castor oil, or Epsom salts, will not fail to afford relief by promoting several evacuations of fœtid and dark stools. Should there prevail great irritation at the stomach, with frequent vomiting, the patient should take, every two or three hours, the saline draught in the act of effervescence, with twelve or fifteen drops of laudanum, and drink freely of barley water, flaxseed tea, or some mucilaginous drink. In order to determine to the surface, the diaphoretic medicines should be employed; and to procure sleep, after the inflammatory symptoms have somewhat subsided, the anodyne sudorific bolus or draught may be given at bed-time. To alleviate the pain and soreness, fomentations as advised in inflammation of the womb, must be resorted to very early. Emollient clysters should be administered during the intervals of employing purgatives, as they will not only assist in keeping the bowels open, but will act likewise as internal fomentations.

Throughout the whole period of the disorder the patient is to be supported by food of a light nutritive nature, administered in small quantities at a time, and repeated frequently, so as never to overload the stomach.

DELIRIUM.

Or wandering of the mind, seldom occurs sooner in lying in women than eight or ten days after delivery, and sometimes not for a much longer time. It makes its appearance very suddenly, the patient not unfrequently awaking terrified from a dream, or all at once she breaks out in some absurd or furious conduct.

There is often very little increase of heat of the skin, or other appearance of fever; though in some instances there is considerable heat, and the pulse is very quick, and this is especially the case where there has just been some strong exertion, or much speaking. But, as in all other cases of nervous constitutions, the state of the pulse is subject to considerable and sudden variations.

The patient is usually extremely talkative, and sometimes speaks with wonderful volubility. In some cases one idea seems to possess the mind; and in others the object of apprehension or consideration is rapidly varied. She can, however, for a short time be commanded, and at times, at least, appears perfectly sensible of what is going on beside her. It is not easy to say what cause produces this disease, for it does not appear to be connected with a tendency to mental derangement in other circumstances. It is, however, a curious and an important fact, that sometimes suckling the infant produces melancholy, or other modifications of this complaint.

When delirium accompanies the milk fever, or the weed, it is only a temporary symptom, and ceases upon the original disease being removed. When it is the effect of phrensy, the treatment consists in those means as advised under the head of inflammation of the brain. But when it appears to be dependant on nervous irritation, the most successful mode of practice is, shaving and blistering the head, keeping the bowels open by cooling laxatives, determining to the surface by the diaphoretic powders or mixture, and afterwards allaying irritation by the camphorated mixture in their usual doses.

If these remedies prove of no avail, the most soothing mild conduct towards the patient ought to be invariably pursued, and the suitable means to promote general good health are to be adopted. The woman should be carefully watched, and never left alone. The recurrence of this disease, in cases where it has formerly taken place, may be prevented by pursuing steadily such measures as shall remove the increased susceptibility of impression which follows delivery, and by guarding against all exciting causes.

MILIARY ERUPTIONS.

These certainly originate in a child-bed state from improper treatment; for whenever a woman in such situation is confined within a heated room, oppressed with a great quantity of bed-clothes, and forced to drink stimulating liquors, with a view of promoting a sweat, according to the absurd and pernicious customs in the treatment of lying-in-patients, she is generally seized with rash fever. [*See Miliary Fever.*]

To conduct the patient with safety through the disease, we must have recourse to some opening medicines, and afterwards restore the strength by the use of Peruvian bark, elixir vitriol, and other tonics. Where the rash suddenly recedes, it will be necessary to have recourse to cordials and diaphoretics.

Affections of this kind may, in general, be avoided by attention to diet, by keeping the patient's bowels in a good state, and by admitting a proper ventilation through the chamber.

PUERPERAL FEVER.

A fever happening from any disease in consequence of pregnancy, or delivery of a child, and happening during the time of lying-in, may be properly called a *child-bed* or *puerperal fever.*

The symptoms which characterise this disease are, pain and tension of the abdomen, short anxious breathing, uncommon quickness of the pulse, increased temperature of the body, tensive pain over the forehead, peculiar wildness of the eyes, prostration of the vital powers, suppression or diminution of the milk and lochia, a flaccid state of the breast, and upon drawing them, blood instead of milk, is frequently discharged.

The progress of a puerperal fever is sometimes so very rapid, particularly in warm climates and hot seasons, as to destroy the patient in forty eight hours. Even in cases seemingly the most favorable, we should look on the event as doubtful, as the complaint is apt to be accompanied with delusive remissions, and indications arise in its progress, which are by no means equal to the danger.

The causes are various, and sometimes the disorder is inflammatory, but it soon tends to the putrid kind, and sometimes from the beginning a putrid fever.

During the first stage of puerperal fever, if there be marked inflammatory symptoms, it is advisable to draw some blood from the arm, proportioning the quantity to the habit and constitution of the patient. The necessity of procuring stools by purgative medicines, as well as removing putrid feculent matter, must be obvious, and an equal regard should be paid to the state of the skin by administering such medicines as determine to the surface of the body, and thereby abate febrile heat. With the first intention the aperient and diaphoretic pills, given in broken doses, or ten or twenty grains of calomel with a few grains of ipecacuanha, followed in a few hours afterwards by a table-spoonful of Epsom salts, will be found very beneficial at the commencement of the disease. And in order to excite gentle perspiration, the spirit of Mindererus, Dover's powders, or diaphoretic drops, [*See Dispensatory*] should be employed in their usual doses. After these means have produced some good effects, one or two grains of opium alone, or conjoined with a few grains of ipecacuanha, or the anodyne sudorific draught, may safely be given to relieve pain as well as to procure rest.

It often happens that nausea and vomiting of bilious matter attend an attack of this fever. In such cases give a gentle emetic of ipecacuanha, and after its operation, if the sickness continue, apply to the stomach poultices of mint stewed in spirits.

It has been observed that this fever, after continuing a day or two, very often acquires a malignant and putrid tendency. Under such circumstances it will be proper to have immediate recourse to the remedies advised under the head of the nervous fever.

To alleviate the soreness and distention of the abdomen, we should apply fomentations both inwardly and externally; inwardly, by injecting emollient clysters from time to time, and externally, by applying flannel cloths, wrung out in a warm decoction of camomile flowers, or some bitter herbs, with the addition of one-fourth spirits and an ounce of laudanum, to one gallon of the decoction, over the whole region of the abdomen; and these ought to be renewed as often as they become cold, taking due care that they are not so wet as to run about the bed and incommode the patient.

Where the abdominal cavity is highly painful to the touch, and is occupied by extensive inflammation, the application of cold to the parts by cloths dipped in a mixture composed of two parts of vinegar or cold water, and one of spirits of camphor, has frequently been attended with happy effects.

If a gentle purging arises in the first stage or commencement of the complaint, it ought not to be too hastily stopped, as the fever has in some instances been carried off by such a spontaneous evacuation.

PROTUSION OF THE VAGINA.

The vagina, or passage to the womb, is sometimes protruded, or pushed out of its natural situation. The disease appears in the form of a soft compressible tumour or swelling, protruding without the external passage, in some cases extending backwards, and in other cases situated on one side. It is not painful when pressed upon, and most commonly it subsides when the patient lies down, being only troublesome when she is in an erect posture.

The disease is owing to local relaxation, and that is frequently the consequence of mismanagement after lying-in.

If the prolapsed part be not inflamed, and there is little or no swelling, the tumour will be very little trouble. The part may be restored with the fingers, which, when done, the patient should rest in bed some days and inject into the vagina, three or four times a day, warm vinegar and water, or port wine and water, or lead water, or solution of alum in a decoction of red oak bark or water. If the patient be weak, strengthening remedies will be required, as the cold-bath, bark, rust or tincture of steel, or tonic powders or pills. At the same time it will be prudent to wear the T bandage. When these means fail, it is recommended to make scarifications in the descending vagina.

FALLING DOWN OF THE WOMB.

This is a much more common complaint than the former, and takes place in woman of every age, and every rank. As its name implies, it consists of change in the situation of the womb, by which that organ lies much lower than it ought to do. In some cases it absolutely protrudes entirely without the parts. The slightest degrees are styled bearing down; and the more violent ones descent or falling down of the womb.

In general, the first symptoms of this complaint is an uneasy sensation in the lower part of the back while standing or walking, with now and then a kind of pressure and bearing down.

If these feelings be disregarded, the complaint increases and the patient becomes incapable of making water without first lying down, or pushing up a swelling which seems to stop the discharge of urine; and if the disease continue to increase, the womb is actually forced out of the parts, and takes on the form of a bulky substance hanging down between the thighs. This extreme degree of the complaint can seldom happen, excepting in women who have had a great many children, but the lesser degrees of it occur occasionally in very young unmarried women.

The causes of descent of the womb ought to be known to every woman, as many of them may be avoided. Every disease which induces weakness of the habit in general, or of the passage leading to the womb in particular, must lay the foundation for the complaint. Frequent miscarriages, improper treatment during labour, too early or violent exercise after delivery, are, in married women, the most frequent circumstances by which falling down of the womb is produced. In the unmarried, it is apt to take place in consequence of violent exercise, as in dancing, riding, &c. while out of order, a fact that ought to be impressed on the mind of every young woman.

In the treatment of this complaint, the means must be adapted to the degree of its violence. When the descent is inconsiderable, and the case is of recent date, the daily use of the cold-bath, invigorating diet, very moderate exercise, and the injection of any mild astringent liquor into the passage, evening and morning, will probably prove successful. But should the disease be in a great degree of long standing, a course of tonics, with the frequent use of astringent injections, as a strong solution of alum in water, or decoction of red oak bark, must be added to the above means.

Dr. Leak advises, that after the parts are reduced, the intention of contracting the relaxed vagina so as to prevent its future descent, may be effected by the frequent use of the following astringent injection. Take of alum, and white vitriol, each, one drachm, boiling water one pound, mix and filter through paper. Inject it into the vagina, milk warm, with a womb syringe. At the same time endeavour to strengthen the whole bodily system by nourishing diet, and tonic medicines.

When the complaint resists such remedies, or when, from its degree. it shall appear unnecessary to employ them, the only relief which can be afforded, unless the womb become pregnant, is to be obtained by wearing an instrument called a pessary. It is made of wood or ivory, and if properly adapted to the passage. and of a proper construction, it can be worn without much inconvenience, and it never occasions pain. Certain attentions, are however necessary, whenever such an instrument is used. Thus, the pessany should never be allowed to remain in the passage above a few days at a time, otherwise it becomes the source of great irritation. It should, therefore, be occasionally withdrawn on going to bed, well cleaned and re-introduced in the morning, before the patient rises. In some instances, after a pessany of a certain size has been worn for several months, one of a smaller size becomes better adapted to the passages, and in other cases one of a larger size is required.

Sponges of such a size as, when expanded, fill up the cavity of the vagina, are very good *pessaries*. They support the uterus, and by putting a string through them, the end of which is to be left hanging out of the os externum, the woman can take them away and apply them herself very conveniently.

To answer this purpose, a fine sponge, wrung out in alum water, may be dried in a compressed state, and cut into any convenient form, so as to be introduced as high as possible; this will act by its astringency, and by its pressure, in a gentle and uniform manner. During the use of this application, an astringent injection may be used twice a day; and the sponge tent should be made gradually smaller as the vagina contracts.

The application of the bandage round the whole belly, with a moderate degree of firmness, often gives great relief to the uneasy feelings. The T bandage has also been worn in this case with considerable advantage.

If a woman, liable to falling down of the womb, become pregnant, there is no occasion for the pessary after the third month, and by proper treatment after delivery, the return of the complaint may be prevented.

In the Edinburgh "Medical Commentaries" is the following account. A woman of singular fortitude, about fifty years of age, was much afflicted with *prolapsus uteri.* After trying many remedies in vain, and being tired out with the continuance of complaint, she at length cut into the substance of the womb with a common kitchen knife. A considerable hemorrhage ensued; after which, the uterus gradually contracted, and she had neither a return of the *prolapsus*, nor was she afflicted with any other symptoms. Having boasted of her success, many women in the neighbourhood, afflicted with the same complaint, applied for her assistance, and by a similar operation were effectually cured.

It is supposed that scarifications may succeed instead of incisions or the prolapsed womb, and the same method of cure is still more strongly recommended in the protrusion of the vagina.

POLYPUS IN THE WOMB.

The vagina and womb are subject to fleshy excrescences, called Polypous Tumours, in common with some other parts of the body. These, in many cases, are soft as clotted blood; in others they resemble flesh; and sometimes they are found of a hard consistence. They are of different sizes and shapes.

The mild polypus is connected to the womb generally by a narrow neck. As it grows the womb enlarges, and presently its mouth dilates, so that the polypus can be felt with the finger. Then it gradually descends into the passage, or in some instances, is forced down, with pains like those of labour.

Excrescences of the womb differ from descent of that organ, in being attended with the frequent discharges of blood, and when felt, in being broad and bulky, and having no orifice like the protruded womb, and in being easily moved or twirled around, as it were by the finger.

The cause of this complaint has not been ascertained. It is evidently unconnected with the married state, as it occurs in unmarried women, and it does not appear to attack, exclusively, any particular constitution.

No medicines have any power over this tumour, but it may be safely and successfully removed, by the application of a ligature round its neck. This operation gives no pain, and is practicable, whenever the mouth of the womb has dilated completely. But, if the symptoms be not urgent, it will be better to delay, until the polypus have wholly, or in part, descended into the passage, as the ligature can then be still more easily and successfully applied.

There is a tumour of a different kind, met with in the womb, which does not spring from the surface of its cavity, but is imbedded in its substances. It forms a knob or projection, which gradually increases, and in some instances, several of these form in succession, and the womb becomes considerably enlarged.

This tumour is called a tubercle. It produces very nearly the same symptoms with polypus. The distinction between this disease and a polypus, can only be made by a skilful examination, which determines the point.

The growth may very frequently be checked, and in several cases its size may be even greatly diminished, by taking, for a length of time, two or three drachms of the vitriolated tartar, or cream of tartar, in a glass of water every morning before breakfast. Should this not be sufficient to keep the bowels in rather a laxative state, its operation may be assisted by taking, at bed-time, an aloctic pill. Much advantage is also derived by the use of the warm sea bath, which, if not attainable, a little salt added to the water may be substituted. The patient must observe a light diet, and carefully avoid heating and stimulating drinks. Perhaps a mercural course might be attended with good effects in this effection of the womb, and afterwards the nitric acid.

The possibility of removing this complaint, or of keeping it in subjection by proper remedies, and the great probability of curing completely a polypus, by a simple operation, or of relieving by a mechanical contrivance, a bearing down of the womb, must be surely powerful inducements for women labouring under symptoms of these complaints, to submit early to skilful examination, which can alone determine the precise nature of their disease.

CANCER OF THE WOMB.

This disease most frequently appears about the time when the menstrual evacuation ceases, but no age is exempted from it.

Its approach is in general gradual. At first the patient feels an uneasy weight in the lower part of the belly, with the sensation of heat or disagreeble itching. By degrees irregular shooting pains, darting across from the share bones, take place. The pain at last becomes fixed in the womb, and is described to occasion a constant gnawing, burning sensation. A discharge of ill-coloured fœtid, acrid matter from the vagina, attends this pain; and, notwithstanding every attention to cleanliness. excoriates the neighbouring parts.

The nature of cancer is not yet properly understood by practitioners; but it is well known, that the first change in the part, which afterwards becomes cancerous, is a thickening and hardening of its substance. This may be suspected to have taken place in the womb, if there be pains in the thighs and back, bearing down when using exercise, and occasional violent discharge of clotted blood. By early attention to such symptoms, many individuals have had the progress of the disease completely arrested.

In the early stages of cancer of the womb, a continued perseverance in milk and vegetable diet, a total abstinence from animal food of all kinds, and every fermented liquor, and occasional blood-letting, and in some cases the establishment of one or two issues in the arms or above the knees, together with frequent doses of cooling laxative salts, tends most materially to relieve the symptoms, and to retard the progress of the disease.

Pain and irritation, which strongly tend to increase, are allayed by the use, every night, of the warm-bath, impregnated with salt. This sooths the part, and indeed the whole system, and contributes materially to the relief of the patient. The injection of decoction of camomile flowers into the passage, morning and evening, is always proper. Discharges of blood are moderated by rest, keeping the patient cool, and pressing a cloth firmly on the passage. Should the size of the tumour render the passage of the stools or urine difficult, it will be necessary to assist the evacuation of the former by laxatives, and to have the latter regularly drawn off. Care must be taken, however, to give no stronger laxative than is sufficient to produce the desired effect; for frequent stools, in such circumstances, give great fatigue and produce much injury.

Should there be, in the last stage, much pain or restlessness, these must be overcome by opiates. The fœtid discharge is to be carefully washed away, and every attention must be paid to the mitigation of those evils and distresses connected with protracted disease.

A variety of medicines have been proposed for the cure of cancer in every part of the body. These are generally useless, and sometimes hurtful. The pretentions of empyrics, and the no less injurious interference of friends and acquaintances, who have all their own mode of cure, too often deceive the patient, and prevent her from using those simple but salutary means, which at first keep the disease in subjection; or from submitting to an operation when the complaint is seated in a part capable of being removed. The only time when benefit can be derived is thus lost and nothing afterwards remains but to diminish, as much as possible, the misery of the patient.

A MOLE,

Is a fleshy or bloody substance contained in the womb, and its size varies from that of a nut to an orange, or it may even become larger. The symptoms are very much the same at first with those of pregnancy, so that this has been called a *false conception.* However, in pregnancy the belly often becomes flat and less, until the end of the second month; on the contrary, when there is a *mole,* the belly increases from the first, and so continues to the second or third month, at which time it generally comes away. If it continues longer, it often proves troublesome by the flooding it occasions. After the period of four months, the mole excites no motion in the womb like those of a living child, it distends the belly equally, and changes its situation according to the posture of the mother, which is never known to happen whilst the fœtus is alive.

It is produced by the retention of a clot of blood in the womb after a miscarriage, a profuse menstruation, or it may follow a delivery at the full time, or may be occasioned by the retention of a blighted conception.

When a *mole* occasions no ill symptoms in the mother, no violence should be used to bring it away. but it may continue many years without creating any remarkable inconvenience. If it comes away by the end of the third month, it rarely happens that any assistance is necessary. Let the finger be gradually introduced into the womb, and if that suffice not, introduce another, and thus the *mole* will generally be excluded by the pain which attends on these occasions. The *mole* is expelled with the same symptoms as in a miscarriage, and requires similar management.

A substance of a different nature is occasionally met with, namely, a mass consisting of small bladders, called *hydatids.* These bladders, which contain water, may be very numerous, and somewhat resemble a thick cluster of grapes. Some of them are not larger than the head of pins, others larger than a nut, or one or two may even acquire a greater size. Generally speaking, they are produced by the same causes which occasion a mole, but they usually proceed from the retention of a blighted conception, which comes to be converted into hydatids. In this last case, the time when the embryo or fœtus perishes, is marked by the breast becoming flaccid, and the morning thickness going off. The belly does not increase in size, or if it do, it is slowly. The patient does not become regular, as she would have done, had the womb been emptied; but she may be subject to irregular discharges of blood. At length after an uncertain period, pains like those of labour come on, and the mass is expelled, often with a very considerable flooding. The management is the same as in an abortion. After the expulsion, milk sometimes appears in the breasts.

DROPSY OF THE OVARIUM.

The appendages of the womb called *Ovaries,* are frequently the seat of dropsy. This disease occurs at every period of life.

It is a most extraordinary fact, that a small body, not larger than a nutmeg, and having naturally no cavity, should by disease become so enlarged as to contain, in many instances, above ten gallons of watery fluid.

At first, dropsy of the ovarium is very considerable, and attended with no disagreeable symptoms. It increases gradually in bulk, and is originally confined to one side only, more frequently the left one. The patient enjoys usual good health in most cases, till the tumour has acquired a considerable size; it then induces pain and numbness in the thigh corresponding with the side in which the swelling is situated, and by degrees the body becomes wasted, the appetite bad, and the strength impaired.

Nothing can be more uncertain than the progress or termination of this complaint. Experience has proved, that, under the most apparent desperate circumstances, the health, has been in a manner restored, or life for a considerable time protracted; while, on the other hand, where no urgent symptoms have appeared, a sudden aggravation of complaints has occured, and a rapid advance to the fatal termination has taken place.

With respect to the cause of this disease, nothing satisfactory can be offered. Women of every age and condition are found afflicted with it. Human prudence, there is reason to fear, can neither foresee nor prevent its occurrence.

This disease can be very rarely cured. Our chief and most rational object is to keep it from increasing quickly. For this purpose diuretics have been tried, but they have no effect. The best practice seems to be, to make gentle pressure externally with a bandage, so as to support the parts, at the same time, that we may keep the bowels open, and use means for invigorating the constitution. Troublesome symptoms must be palliated by appropriate remedies.

When the tumour have acquired a great size, and produce breathlessness and other urgent symptoms, the water may be taken off by the operation of tapping. A temporary relief, however, will only be obtained by these means, for the fluid is commonly soon again accumulated in increased quantity.

In some rare cases, where the general health of the patient remain unimpaired, by the use of strengthening remedies, the disease has been prevented from returning after tapping; and hence patients, under such circumstances, should not altogether despair.

Dr. Cutbush gives an instance of a dropsy of the fallopian tubes, being effectually cured by the application of tobacco. [*See Materia Medica.*]

WORMS.

Women after child birth, are very frequently much troubled with worms, particularly the small white worms called ascarides. These produce a very troublesome itching about the fundament or lower part of the intestine. They also occasion want of appetite, or depraved appetite, itching in the nose. pale face, irregular pains in the belly or sides, and sometimes a difficulty in making water. If the stools are examined, they may often be found mixed with slime, and worms can be discovered like small pieces of white thread.

The most effectual means of destroying these animals, to use morning and night, as long as the symptoms continue, a clyster, composed of two drachms of aloes rubbed up with a pint of mucilage of gum-arabic, slippery elm or flaxseed, or thin gruel. If this should not answer, injections of half an ounce or more of the oil or spirits of turpentine, mixed well with the mucilage or gruel should be repeated twice or thrice a week.

A different kind of worm is found higher up, having, to a superficial observer, much the appearance of the common earth worm, whilst another species, namely, the tape worm, is flat and jointed. These produce generally more pain in the belly than ascarides, and seldom any itching about the extremity of the bowels.

The treatment is two-fold, first to give calomel at bed-time, followed by brisk purgatives the next morning, which not only forces the worms away, but by removing much of the slime of the bowels, destroy their favourite and necessary habitation.

The second part of the treatment consists in giving such medicines as are supposed to kill the worms, such as the filings of tin or iron, or Carolina pink root, or pride of china. [*See Materia Medica.*]

For the destruction of the tape worm, the oil of turpentine is considered very efficacious, as also the male-fern root. The dose of the former, is from a half to an ounce given in milk, mucilage, or thin gruel. The dose of the latter, is from one to two drachms, which may be taken in the morning on an empty stomach, for two or three successive days, and the following morning after the last dose, take a dose of calomel and rhubarb, jalap or castor oil.

As an auxiliary remedy in cases of worms, considerable benefit is sometimes derived by applying externally over the region of the belly and stomach, a cataplasm made of the leaves of tobacco pounded and wetted in vinegar, or one of ox gall formed of a due consistence with corn or oat meal.

These remedies have been known to succeed after powerful vermifuge medicines, internally administered, have failed to produce any good effect.

An hereditary predisposition to have worms formed in the bowels and stomach, seems to exist in some persons, as all the children of one family have been known to be troubled with them.

BARRENNESS.

Sterility is a misfortune few women become altogether reconciled to. In various countries and in different ages of the world, charms and spells, and powerful elixirs, have been resorted to; rich offerings have been presented at the shrine of a fovourite saint; pilgrimages have been undertaken to holy wells; and, in addition to all, the virtues of potent herbs and drugs have been made trial of, for the removal of this infirmity. When we consult the writings of the old physicians on this subject, we find numerous recipes, containing medicines sometimes of oppesite qualities, and sometimes no quality at all. The practice of the moderns is, at least, more simple, if not more efficacious. Sterility proceeds from either a temporary or permanent incapability of conceiving or retaining the embryo, till it acquires a form. The causes producing this incapability, may consist in some malformation or deficiency of the womb, or its appendages, which cannot always be discovered during life, or in merely a weakness in the action of the womb. This last is by far the most frequent cause, and it is occasioned by local weakness of the womb or general affections of the whole system; and is marked usually by an obstruction, deficiency, or redundancy of the menstrual evacuation, or by the complaint termed female weakness. It is very rare indeed, for a woman to be barren, who is, in all respects, regular.

We do not, in the present age, pretend to the knowledge of any elixir or medicine, which has the specific power of curing sterility. We proceed on the principle of rectifying the constitution, where it is injured or weak, and of restoring the menstrual evacuation, to its due and healthy state. The means for effecting these purposes, must depend on the situation of the individual, and may be learned from some of the preceding chapters of this work.

There are chiefly two states of the constitution productive of those deviations in the action of the womb, which cause barrenness. The first is a state of fulness, and a disposition to obesity.

The person gradually becomes fat and inactive, the menstrual evacuation continues regular for some time, but at last diminishes, and becomes obstructed, or goes to the opposite extreme, and becomes frequent or profuse. The patient is either barren or subject to false conceptions and abortion. This state is to be rectified by spare or vegatable diet, total abstinence from malt liquor, regular and constant exercise, especially early in the mornings and on horseback, the prudent use of laxatives, and after some time the cold bath. These means will, if persisted in prudently, effect the desired change, but if pushed to an undue degree, and especially if repeated purgatives, and much vinegar, or great abstinence be resorted to, the health may be completely ruined.

The second state is that of relaxation, the habit is spare, instead of corpulent; the mind is lively, and perhaps even irritable; the menstrual evacuation either profuse, or it recurs too frequently, and at times clots and shreds are discharged.

This requires a different treatment: the diet, if not unusually nutritive, is at least not to be sparing, the exercise must not be carried the length of fatigue, the cold bath is useful, and strengthening medicines are required.

Such remedies as have been pointed out for the removal of irregularities of the menstrual evacuations, or of flour albus, must be employed when necessary.

By persisting carefully in a proper plan, sterility may at length be frequently removed. There are many instances of women bearing children, after having been several years barren.

MANAGEMENT

AND

DISEASES OF CHILDREN.

AFTER the child is born, the first thing to be done, if it be lively, is to separate it from the mother. But, if it do not cry or manifest signs of life, this is to be done with greater hesitation. Children do not breathe in the womb, but have that function compensated for, by the circulation of the blood, through the after-birth, by means of the navel string. Now, if after being born, the child do not breathe, gasp, or cry, then, after ascertaining that the face and mouth are not covered with the membranes, and that the navel string is not incircled round the throat so as to prevent breathing, the next thing for consideration is, whether it is still deriving any assistance from the after-birth, for if so, removing the child would be a fatal step. This we know, by taking the navel string between the fingers and thumb; if a beating or pulsation be felt, the circulation is going on and, as long as that continues, the cord ought not to be tied. There may be exceptions to this general rule, but of these exceptions, nurses and attendants cannot judge, and, therefore, to them, the rule is absolute. The child is to be kept warm below the clothes, except the face, and is to be rubbed with the hand, particularly over the breast. If it begin to breathe soon, and give one or two convulsive struggles, there is seldom any risk; it will speedily cry aloud, and may then be separated. But if it do not breathe, and the pulsations in the cord stop, then, after this, no good can accrue from letting the child remain in that situation; the cord is to be tied and cut; or, if the pulsation stop immediately after the birth of the child, it is not to be continued connected to the mother. In either case, whether there never was pulsation discernable, or whether there was at first pulsation, but that have now ceased, the child is to be immediately removed, and measures used for restoring animation, unless there be evidence from the putrid appearance of the child, or cord, that it has been long dead.

STILL-BORN.—Children may be still-born, in consequence of various causes, such as pressure on the navel string, during labour, so as to obstruct the circulation; long continued labour after the waters are drained off; or from remaining long with the head pressed in the bones of the mother; besides other causes connected with the state of the child itself, inducing actual death before delivery, or unfitting it for breathing after-birth.

The occasional recovery of still-born children under circumstances where experience alone could have encouraged such hopes, ought to teach practitioners of midwifery the importance of employing, with patience and attention, the means conducive to this purpose.

These means consists chiefly in preserving the heat, and endeavouring to produce respirations. The first is done by immersing the child up to the neck in luke-warm water, or covering it with warm flannel until that can be procured. The second is effected by such means as tend to rouse the system in general, such as friction with spirits over the body, the application of some stimulant to the face, such as touching the temples, nostrils, and lips, with a feather dipped in vitriolic ether, or spirits of hartshorn, slapping the buttock and soles of the feet, with the palm of the hand, and giving an injection consisting of a tea-spoonful of spirits with two or three table-spoonfuls of warm water, or a little salt and water, but chiefly by endeavouring directly to excite the functions of respiration, by inflating the lungs with air. This is done by means of a bag of elastic gum, or a common syringe, the pipe of which is to be inserted into one nostril, while the other and the mouth are carefully closed, and are then, by gentle pressure on the breast, to be emptied. In this way the lungs are to be alternately distended and compressed for some time. Should the process of breathing commence after these means have been used for a few minutes, nothing else is to be done than keeping the infant warm, with its face freely exposed to the air.

Fortunately the above means for recovering still-born infants are seldom required, and the child, in a few seconds after-birth, cries and breathes freely.

NAVEL CORD.—In general there is more impatience shown by the attendants than is prudent, in respect to tying the navel string. In order to tie the cord as it ought to be, two ligatures will be necessary, which should be formed of such a number of threads, knotted together at each end, that in tying firmly with them, there may be no danger of dividing the navel string. And as soon as the circulation in the umbilical cord is stopped, one of them is to be applied about three or four fingers' breadth from the navel, and the other about two inches from the first, on that side next the placenta, and then divide the cord between them.

On separating the child from the parent, the first thing to be done, is cautiously to wash off the white crust which covers the skin, by means of a little soap and lukewarm water. The child being cleansed, a small bit of soft rag is next wrapt round the navel string, and a band is wound lightly round the belly. After this the child is to be dressed, suitably to the season.

The portion of cord which is left next the belly, drops off within five or six days after-birth, and leaves a tenderness that is generally entirely removed in two or three weeks, by the ordinary means which nurses employ. A split raisin applied every morning underneath the singed rag, accelerates greatly this process.—When a complete separation of the cord does not take place in a week, it is usualy found to hang only by a very small filament or thread, which should be divided.

CLOTHING.—*Midwifery* was first practised by women. Hence the dressing of children became an art which few could attain. Each midwife strove to out do all others in this pretended knowledge. These attempts were seconded by the vanity of parents, who, too often desirous of making a show of the infant as soon as it was born, were ambitious to have as much *finery* heaped upon it as possible. Thus it came to be thought as necessary for a midwife to excel in bracing and dressing an infant, as for a surgeon to be expert in applying bandages to a broken limb; and the poor child, as soon as it came into the world, had as many rollers and wrappers applied to the throat and body, as if every bone had been fractured in the birth; and these often so tight, as not only to gall and wound its tender frame, but even to obstruct the motion of the organs necessary for life.

The clothing of infants should be light and simple, and made to tie with tape, as pins are dangerous. Almost every child cries on being dressed, and, therefore, it is desirable to have the dress constructed in such a manner, that it may be easily and readily applied.

If it is wished to have them strong upon their limbs, and active, early in life, as by nature they are intended to be, they should have the perfect freedom of their limbs, and their bodies easy, from the first day of their birth.—Their clothes should, therefore, be reasonably loose upon them, and not too great in quantity, although properly proportioned to the nature and variableness of the weather.

The quantity of an infant's bed covering should also be appropriate to the season of the year. The night-clothes must not be equal in quantity to those which are worn during the day; otherwise a great tendency to be affected with colds, &c. may be induced. For the same reason, when the infant sleeps in his day clothes, he should be very slightly covered.

Infants sleep much at first, and ought not to be disturbed; in this respect, they may be left to their own propensity, and as they grow older, they sleep less. The only point to be attended to, when they become so old as to have the sleep regulated, is to prevent their sleeping so much through the day, as would make them restless at night.

Purging.—The practice of giving infants, as soon as born, butter and sugar mixed, salt and water, or purging medicines, has often proved detrimental by promoting acidity in the bowels. If the infant, after being completely dressed, is apparently quite easy, it should be laid down to sleep, without taking any thing; and after a few hours it may be applied to the mother's breast, whose milk, at that period being laxative, answers the purpose of cleansing better than all the drugs in the apothecarys' shop; and by putting the child early to the breast, especially the first time of suckling, the nipple will be formed, and the milk gradually brought on. Hence much pain, and its consequences, will be prevented. To teach the child how to suck, a little milk and water, sweetened with white sugar, may be given it at the end of a tea-spoon, which the innocent will clasp in its mouth; or a finger wetted with it may be frequently put between the gums.

In cases where the infant appears to be loaded with phlegm, a little well made plain grit gruel should be given immediately, and when this or its natural food, the milk is not found sufficient to expel the meconium, or first black stools, a solution of manna, or a tea-spoonful of good castor oil may with propriety be given.

Nutrition.—It is too much the practice, to give children food or drink before putting them to the breast, on the principle of supporting them until the milk come.—Infants do not suffer so much from want of nourishment immediately after birth, as they do when deprived of the breast for the same number of hours, after they have once sucked. The young of no other animal requires to be fed before sucking the mother; and if infants be applied early to the breast, they will not require it either. No food is so proper for the child, as the mother's milk, and where she has plenty, and the milk agrees with the infant, it ought to constitute the sole support for several weeks.

> "Doubt ye the laws by nature's God ordained?
> Or that the callow young should be sustained
> Upon the parent breast? Be those your schools
> Where nature triumphs and where instinct rules."

After the second or third month, it may then be proper to give the child once or twice a-day, a little of some other food. This will ease the mother, will accustom the child by degrees to take food, and will render weaning both less difficult, and less dangerous. Nature abhors all sudden transitions. For this purpose the food of children ought not only to be simple, but to resemble, as nearly as possible, the properties of milk. Indeed *milk* should make a principal part of their food, not only before they are weaned, but for a long time after.

Infants generally suck greedily, and, if allowed, would gorge themselves and injure the stomach. The mother, therefore, ought not to become the slave of the child, and especially, ought not to allow it to sleep at the breast.—Children may early be taught to suck at regular intervals and never should be indulged as often through the night as through the day; which breaks the mother's rest, is apt to hurt her health, and generally injures her as a nurse. One suck late at night, and another early in the morning, will be quite sufficient.

It has been improperly imagined, that all mothers ought to be nurses. By this opinion many children have been destroyed, and a greater number have only lived to regret their existence; the weakness of their frames having made them strangers to the comforts of good health.

Whenever the parent is injured by giving suck, or the child is stinted in nourishment, or hurt by the quality of the milk, it becomes a positive duty to procure a healthy nurse.

> "Think not that I would bid your softness share
> Undue fatigue, and every grosser care;
> Another's toils may here supply your own,
> But be the task of *nurture* yours alone."

When the infant cannot obtain the milk of the mother, or that of a healthy woman who laid in about the same time, the best food, for several weeks at least, is new milk alone, or mixed with an equal quantity of arrow root, or well boiled grit or barley gruel, with the addition of a little sugar. As the child advances in age, and its strength increases, weak broths, with a little barley, rice, or hard biscuit, boiled in them, may be allowed. It is soon enough to allow children *animal* food, when they have got teeth to tear it.

Bread may be given to a child as soon as it shews an inclination to chew. The very chewing of bread will promote the cutting of the teeth, and the discharge of saliva. Children discover an early inclination to chew whatever is put into their hands

Parents observe the *inclination*, but know not how to apply the *remedy*. Instead of giving to the child something which may at once exercise its gums and afford it nourishment, they commonly put into his hands a piece of hard metal, or impenetrable coral. A crust of bread, or a hard biscuit not only answers the purpose better than any thing else, but has the additional properties of nourishing the child, and carrying the saliva down the stomach, which is a great promoter of digestion.

In feeding children considerable judgment is necessary to proportion the quantity of food to their age and strength. Weakly children will always require less food than those who are stronger, for they are less able to digest it. They are frequently attacked with alarming and even fatal convulsions, from their bowels being overloaded. Under all circumstances, if the food is too thick, or given in too great a quantity, the perfect digestion of it is prevented.

It is not necessary to feed a child oftener than five or six times in twenty-four hours, and the less it is fed in the night the better. It is almost ridiculous error to suppose that whenever a child cries it wants victuals, and thus to be constantly feeding it both day and night. If the child's wants and motions be judiciously attended to, it will be found that it seldom cries, but from pain; and if it be properly nursed, and quite easy in its dress, it will rarely cry at all. Nurses should be particularly cautioned not to lay a child on its back when fed. In the posture of sitting, it swallows its food more easily, and more readily feels when it has enough.

Cleanliness.—The most scrupulous attention to cleanliness, during the whole period of childhood, cannot be too strongly inculcated. For the first week or two the infant should be bathed, morning and evening, in tepid water and afterwards in cold water. The whole body ought to be washed in the morning, and the lower half at night.

In washing with cold water it is proper to begin with the head, and to finish as expeditiously as possible.

The infant should be afterwards well dried, particularly at the bendings of all the extremities, and the whole body and limbs should be gently rubbed with dry soft linen or flannel until a glow of warmth appears upon the skin. It is the manner of washing a child that secures it from suffering from the application of cold water. The more delicate and weakly an infant is born, the more will cold water strengthen it, if well applied; and, besides its bracing qualities, it will, by cleanliness, prevent excoriations, and keep off that troublesome complaint termed the *scald head.*

When the application of cold water has been omitted for some days, it will be better to begin with the addition of a little salt or some brandy to the water, lessening the quantity of it gradually, so as to leave it off entirely in a few days.

When children are a few months old, cold bathing may be substituted in the room of washing with cold water; and it may be proper to add some directions, respecting the mode of dipping a child in cold water. Of these, the principal is, carefully to watch for that moment when it has taken in a full breath, and then to plunge it into the water, and take it out instantly, so that no part of the action of respiration may be necessary during the time of submersion. The child will then breathe freely on being taken out of the water, and suffer little or none of that agitation which often defeats the intention of the practice, and produces a terror when it is to be repeated.

Children should have their linen and clothes frequently shifted. How often do we meet with little infants, merely from sloth or ignorance, wearing the same dress for days, and rendered disgusting both to sight and smell. Scarcely any other care or advantage can prevent the child from suffering, when cleanliness is neglected.

Attention should be paid to keep the child dry, and the clothes ought to be immediately removed when soiled or wet; the child should also be wiped with a soft sponge, dipped in water. It is wonderful how early an infant may be taught to void the urine and stools at proper intervals into a pot.

Air, Exercise, and Sleep.—If grown persons, who have been many years accustomed to impure air, often feel themselves sick in a crowded room, it must be very evident, that a much less degree of bad air will affect infants, whose lungs are weak and irritable.

The temperature in which children are kept should be so regulated as never to be below that which is agreeable to an adult. By sudden exposure to cold air, the infant is apt to have cough, or stuffing of the nostrils, produced; on the other hand, warm apartments, and especially a neglect of a circulation of air, hurts the health, and makes him liable to fits.

On the proper exercise of infants, more depends than superficial observers could imagine; for, by inattention to this circumstance, a foundation is often laid for diseases, which, though their first approaches be slow and gradual, terminate suddenly in a fatal manner.

It is, therefore, of great importance, both to the population of the country, as well as the health of the inhabitants, that parents should attentively consider, that the more children are exposed to the open air, within prudent bounds, the less they are subject to take cold. By exercise in the fresh air, weakly and delicate infants will,

> Acquire a vigour and elastic spring
> To which they were not born.— ARMSTRONG.

For a week or two the mere washing and dressing of children, and the motion which they from time to time make with their arms and legs, is productive of sufficient exertion. By degrees, they may be tossed or dandled a little, and ought to be occasionally placed on a bed to allow them to kick, and move their arms freely. When they are able for it, they should be encouraged to creep on the carpet, and even when two or three months old, the feeble and unavailing attempts they make to move or to raise themselves are useful.

The age at which infants may be taken out depends much on the season. In warm weather they may be carried out when a fortnight or three weeks old, but in winter they must be older.

At first they ought only to be kept without doors for a very short time; and the person who has charge of them should walk slowly and gently, and avoid standing, especially in a current of air. By degrees they may be sent abroad twice a-day, when the weather is favourable, and may be kept out gradually for a longer space of time.

Infants sleep much at first, and ought not to be disturbed. In this respect, they may be left to their own propensity, and as they grow older they sleep less. The only point to be attended to, when they become so old as to have the sleep regulated, is to prevent their sleeping so much through the day, as would make them restless at night.

A crib is the proper bed for a child. Cradles are hurtful, as the rocking is often carried to a dangerous degree, and, besides, they are so confined, and generally so closely covered, that the child breathes an impure air.

Nature never intended that infants should have exercise during sleep after they have breathed; therefore, the idea, that rocking in a cradle resembles the motion to which infants have been accustomed when in the womb, is an erroneous one. The young of other animated beings sleep quietly and profoundly for a great part of their time without any rocking, although they also were habituated to a gentle waving motion before birth.

Every restriction to one particular position, in whatever situation the infant may be, ought to be constantly guarded against; for as the softness of the bones renders them easily moulded into an improper shape, deformities, which may destroy the health, or prove the source of much future distress, will, if this caution be not observed, be readily induced. An infant should not, therefore, be laid always on the same side, nor carried constantly on the same arm.

WEANING—Forms an important æra in the life of an infant, as on the proper regulation of this great revolution in his mode of living his future health often depends.

The time at which a child should be weaned depends much on his health, and on circumstances connected with the nurse. A delicate child requires to be nursed longer than one who is stout; and where there is reason to suspect a tendency to particular complaints, connected with weakness of constitution, or where children suffer from teething, or former children have suffered from weaning, it will be right to continue the nursing for near a twelve month. But when the child is vigorous, he may be weaned at nine months, or even earlier, if any particular circumstance require it.

> Since there's no help, come let us kiss and part,
> Nay, I have done, you get no more from me,
> And I have glad, yea, glad with all my heart,
> That thus so clearly I myself can free. **Drayton.**

This is perhaps one of the severest trials a mother is called to endure, when compelled to relinquish the sweet office of nurse to her babe. What sensation can equal the rapture of that moment!

> When the fond mother, bending o'er his charms,
> Clasps her fair nursling in delighted arms;
> Throws the thin kerchief from her neck of snow,
> And half unveils the pearly orbs below;
> With sparkling eye the blameless plunderer owns
> Her soft endearments and endearing tones,
> Seeks the salubrious fount with opening lips,
> Spreads his inquiring hands and smiles and sips.
> **Darwin.**

Many errors are daily committed in the method of weaning. Some women deprive the infant of the breast at once; and others, by the application of mustard or any nauseous substance, to the nipples, endeavor to make him desert the breast of his own accord. Both practices are equally cruel and improper.

In all cases, the change ought to be made gradually, the child receiving more food, such as arrow root, biscuit, jellies, beef-tea, &c. and less milk for some time previous to weaning. It will also be of advantage to accustom him for a few weeks to have no suck early in the morning; nothing from bed-time till an early breakfast. Many give drink through the night, which is merely a bad practice. By giving food three, or even four, times daily, and lessening the quantity of milk gradually, as the other diet is increased, children very seldom suffer from weaning. The great cause of injury is the change of diet, which produces disorders of the stomach and bowels, and this it is evident cannot be so effectually prevented by any method as making the change gradually.

The practice of giving a child toddy, or laudanum, &c. to make it sleep, when it is weaned, is very hurtful, as these injure the stomach and bowels.

The infant should be accustomed, when weaned, to receive food or drink at stated periods, and not according to the caprice of nurses. Although this task will at first be somewhat difficult, it can always be accomplished by perseverance: and the benefits which the infant itself, and its attendants derive from this circumstance, will more than compensate for the trouble attending the attempt. As little drink or food ought to be given during the night as possible; for a bad habit may be induced, which may lay the foundation for many future complaints.

NURSING.—Much of the present comfort and future health of a child depends upon the nursery maid.

> "What careless dread a mother's breast alarms,
> Whilst her loved offspring fills another's arms!
> Fearful of ill, she starts at every noise,
> And hears, or thinks she hears, her children's cries."

Among the qualifications required in a nurse, the following may be enumerated.—Cleanliness in her person, with a cheerful obliging temper—patience, and a method in all her arrangements—attention to regulate the temperature of the nursery, so as to avoid either cold or excessive heat, and to have the clothes always dry and clean—prudence in the diet of the child, and perfect obedience to rules and orders.

As children can be early educated to evil and mischief, it will not be denied, that, with equal attention, they may be trained to good. And since they are, in some measure, under the control of the nursery maid, it behoves parents to be watchful, and not to trust their offspring in the hands of one not endowed with good qualities.

"Once exiled from your breast, and doomed to bring
His daily nurture from a stranger spring;
Ah! who can tell the dangers that await
Your infant, thus abandoned to his fate?"

Indeed there is no doubt, much of the misery, and many of the crimes of human life, have their foundation laid in the nursery; and could some of those who have suffered most for their misconduct know all the steps which led to it, they would regret that the seeds of ungovernable passion, of selfishness, and other vices, had been planted before they could discern their right hand from their left.

It is greatly in the power of a nurse to regulate the disposition of a child, as well as promote its health, by carefully avoiding those causes which may have the least tendency to render it fretful and peevish, and by removing, as far as possible, every distress on its first appearance.

A child does not cry unless uneasy from hunger, want of sleep, pain,.or some inconvenience. Bodily uneasiness will, with any child, affect the mind, rendering it peevish and irritable, and presently, causes which may be called mental, will do the same. For a child is not merely an animal machine, it has also a mind capable, very early, of feeling various passions.

So soon as children begin to notice, and to be attracted by sounds and objects, the nurse ought to sing in a cheerful and lively strain. And we should present, and take away, in a cheerful and amusing manner, objects which attract the eye, by which the child is early taught to receive, and readily part with, what it desires.

Now, when his little hands from bondage free,
Restless expand in new-born liberty,
You teach the child, with reprehension light,
In preference to the *left* to use the *right*. ROSCOE.

The practice of servants scolding children in jest, and teaching them to scold in return, encouraging them to scratch, and revenge real or pretended injuries, and to take vengeance on chairs and stones, is productive of incalculable mischief.

And we not unfrequently find great pains are taken by the nurse to inspire the child with terror at the doctor, and at medicine, the effects of which are best seen when the child becomes sick.

We will further observe, it is through a most criminal inattention to children in the nursery, a foundation is sometimes laid in their tender minds for those superstitious terrors, from which not all their efforts in subsequent life can entirely relieve them. I allude to those dismal stories about *witches*, *spirits*, *hob-gobblins*, *raw head and bloody bones*, wherewith silly nurses, especially poor blacks, are so fond of frightening infants. Considering the importance of deep impressions made during those tender years, parents cannot too strictly forbid every thing of this sort; neither can they ever exceed, in their generous labours, to illuminate the minds of their children with lofty ideas of their Creator, and that mighty power which he will never fail to exert in their favour, if they will but be *good*.

Caution to Parents.—Independent of the means we have pointed out to ensure the health of children, and preserve the human species, we must have an equal regard to the dispositions of children. We consider the health of the mind of even greater importance than the health of the body, and indeed they are very intimately connected; for what mother can vouch for the health of her babe a single day, if she has not command enough over herself and it to control its appetites, wants, and desires; on the due regulation of which not only its happiness, but its health, must depend.

It is to be recollected, that a child has a mind endowed with gradually unfolding powers and passions; that when it begins to notice and desire, it becomes an object of education or training; and *this is the time* to acquire that ascendency over your children's minds which, if properly employed, will ensure you a due degree of influence over them through life. Every discreet mother, deeply impressed with the importance of the trust committed to her, will begin by gentle admonition, softened by maternal endearments, to check the first indications of obstinacy and ill temper in her child; for like small weeds springing up in a luxuriant soil, they may, *with care*, be easily eradicated; but if permitted, by neglect, to take root, they will soon overshadow the choicest virtues, or choke, them while yet it embryo.

> And should life's olive branches rise
> To bless your fond parental eyes;
> She who, with all a mother's care,
> The nursling plants can fondly rear;
> Th' excrescent shoots with firmness prune,
> Each noxious weed with care consume,
> Till nurtur'd by her fostering hand,
> The rising plants grow and expand,
> Bud, blossom, bear—While each survives
> The ripened fruits of virtuous lives. POLYANTHUS.

As soon as children can comprehend language, they may be taught obedience, and their inordinate desires be regulated in such a manner as to prevent their becoming so totally unmanageable, as is too often the case. For instance, should an infant of eight months take a fancy to its mother's watch, as it would be a very improper plaything, it should receive a gentle, but *firm*, denial. It would, probably, grieve. Something else should be offered it; and if it takes it, and is pleased, all will be well. Often as it reverts to the watch, the denial must be repeated, and it will soon relinquish the expectation, and be perfectly happy with other toys, and so in every thing else. On the other hand, should it show resentment when the watch is denied, and refuse all other playthings that may be offered, instead of weakly yielding to the storm and, with mistaken tenderness, giving up the watch, or with anxious care concealing it from its sight, still greater resolution must be observed, tempered with tenderness and moderation, as the object must be to correct the disposition. On no account permit it to have the watch, and as often as it inclines to dispute the point, let it perceive you are *determined*. After a few lessons of this kind, your word will no longer be disputed, while your children, thus early taught submission, will never require any severity whatever. But then our government must be uniform to produce this happy effect. It will not do, because we should chance to feel out of humour, or it should militate against our own gratifications, to deny an infant an indulgence to-day, which, in a paroxism of maternal fondness, we may grant it to-morrow. Be assured, children will very soon learn to take advantage of such capricious conduct; and when once they discover that we are irresolute in our commands, or may be overcome by resolution and importunity on their part, they will not fail to profit by the discovery, and that by such imperceptible degrees, that many a fond mother finds her authority gone, and her jurisdiction contemned, before she is aware that she has, by her imbecility, forfeited the one, or alienated the other. Nor is this evil confined to infancy. She will feel the melancholy effects of failing to substantiate her claim to obedience from her children during the docile period of childhood, to the latest evening of her life.

> "How sharper than a serpent's tooth it is
> "To have a thankless child"

It is absurd to pretend that a child is inferior to a puppy, and yet a puppy may be early rendered docile and gentle, or sulky and ill-natured, according as he is educated.

To teaze and contradict infants and children is not the way to improve the disposition, or to teach patience; but it is not impracticable to treat them in such a way as to prevent their crying, if they do not immediately obtain, or should be deprived of, what they desire, whether that be the breast or a shining toy. This is to be accomplished, not by stubborn harshness, always hurtful to a child, and indicating a savage disposition in those who use it, but by prudence.

Does any child, at least any one not under the guidance of an absolute fool, ever make a practice of crying, because it is prevented from grasping the flame of a candle? No, surely; and why?—because the mother or nurse will never yield to this; and very soon the child beholds the candle without a wish to do more than look at it—yet, the very same child shall cry himself asleep, or almost into fit, if prevented from scattering the sugar out of the sugar basin.

Some children, we know, are cheerful, good humoured, lively, and little disposed to be petted or fretful, when denied what they wish. Others, equally healthy, are perpetually crying, passionate, and cross, if they do not instantly obtain what they desire. Peevishness and crying cannot, when the child is sickly and uneasy, at all times be prevented; but when these propensities exist in health, there is no question that the fault lies with the parents.

It ought, therefore, to be remembered, that on the treatment the child receives from its parents during this stage, will, perhaps, depend much of its misery or happiness, not only in its passage through this, but through the other stages of existence.

If, on the one hand, every little sally of passion and impatience is immediately controlled; if that which is admissible is regularly permitted, and that which is improper as regularly withheld, the little creature will soon learn to distinguish that which is allowed from that which is prohibited. It will indeed urge its claim for that which it has been taught it has a right to, but will not harass itself and its attendants with ceaseless whinings, or raving to obtain that which uniform prohibition has placed beyond expectance.

But a melancholy reverse appears, if, on the one hand, no consistency is observed in its management; if at one time the slightest indulgence is refused, and at another the most extravagant, and even injurious cravings are gratified; the child becomes more and more fretful, till at length it manifests such ill-nature, as to render it odious to all around, and sooner or later the poor little sufferer pays with its life the purchase of its early indulgencies.

DISEASES OF CHILDREN,

REQUIRING EXTERNAL TREATMENT.

In considering the diseases of children, we shall begin with those to which the new born infant is liable from circumstances incidental to its birth, or mismanagement soon after it, which require, principally, external treatment; and then shall take notice of original imperfections.

Sickness, the minister of death, doth lay
So strong a siege against our brittle clay,
As while it doth our weak forts singly win,
It hopes at length to take all mankind in;
First it begins upon the womb to wait,
And doth the unborn child there uncreate,
Then rocks the cradle where the infant lies,
Where ere it fully be alive it dies. *Carew.

INJURIES IN CONSEQUENCE OF BIRTH.

When the infant has been detained a long time in the passage, the several parts subjected to pressure are liable to be injured.

Swelling of the Head.—The most common of these injuries are swellings on the *head*, or alteration of the shape of that part. First born children are generally affected with some degree of swelling on the crown of the head. The edges of this swelling are hard, and the middle soft, so that an inexperienced person would suppose that the bones of the head were deficient at that part. It will commonly subside in a short time. But when a tumour remains on any part of the head, a cloth dipped in equal parts of spirits and vinegar, and applied two or three times a day, will soon disperse it.

The practice among nurses, therefore, of endeavouring to give the head a proper shape by squeezing and pressing it with the hands, &c. is unnecessary, and ought never to be allowed, on account of the dangers which may be the consequence.

Scratches or Marks on the head require no particular attention as they soon disappear.

Injuries of the Face.—In some cases, where the infant has come down in an unusual direction, the *face* is much affected: the eyes being inflamed, the nose flattened, the lips swelled, the features distorted, and the colour of the countenance livid. These frightful appearances usually go off in a few days, when no violence has been done by improper interference during the delivery.

Swelling of the Breasts.—The breasts of children sometimes swell and inflame, especially if attempts be made to press out forcibly a milky fluid, which they often contain. If the pressure of the clothes is avoided by their being put on loosely, it will generally go off without any application. However, it is sometimes necessary to rub the part gently with warm olive oil; and in case of much inflammation, equal parts of spirits and vinegar must be applied cold, by means of soft linen, or poultices of the crumbs of bread, and lead water or milk, should be employed for its resolution. If, from mismanagement, they should suppurate, a warm milk and bread poultice, is to be frequently applied, and when the tumor bursts, the part is to be dressed with simple ointment.

SWELLING OF THE SCROTUM.—The *Scrotum* will also be remarkably tumid, and even discoloured, particularly when a child has been born by the breech presentation. In this case it will be proper to suspend it by a cloth, after first covering it with a piece of linen, wetted with brandy, which should be frequently renewed.

INJURIES OF THE LIMBS.—The *limbs* are in some cases *fractured* or *dislocated*, by the rashness and awkwardness of the practitioner. These accidents, on some rare occasions, unavoidably happen from the situation of the infant; but are most frequently to be attributed to ill-directed attempts to accomplish the delivery.

From whatever cause these disagreeable occurrences originate, they should never be concealed from the attendants; but, on the contrary, the proper means to remedy them should be immediately adopted.

MANAGEMENT OF THE NAVEL.—From neglect, or from a bad constitution of the child, the navel sometimes, after the cord drops off, becomes very tender and excoriated, giving a good deal of trouble. Great attention is to be paid to cleanliness. It is to be bathed twice or thrice a-day with infusion of camomile flowers, and afterwards with a solution of ten grains of white vitriol in six ounces of rose water. A bit of singed rag is usually employed as the dressing, but when this sticks firmly, a little simple ointment may be used.

If there should be more than usual tenderness, it may be proper also to sprinkle it with a little prepared chalk or starch. In some instances there is a discharge, and the part continues raw; then it will be proper to apply three or four pieces of soft cabbage leaf, laid one over another, that they may be preserved moist and cool, and continued as long as the discharge may continue considerable. The bleeding, which sometimes happens at the navel, is of such little consequence, that a light compress, with some gentle styptic, and secured by a sticking plaster or bandage, soon removes it. The soreness, when considerable, may require a milk and bread poultice, and the exhibition of some mild laxative medicine.

Sore Eyes.—Children, within a few days after birth, in consequence of exposure to much light or a strong fire, or from other causes, some of them operating during delivery, have sometimes inflammation of the eyes. The eye lids swell, and the inside, as well as the white of the eye, becomes red, and covered with a quantity of yellow purulent matter, which comes out at the corner of the eye, which hardening, tends to glue the lids together. In some cases the eye-lids are a little swelled; in others their insides are turned out, especially when the infant cries. If this be neglected, specks may form on the eye, or the disease may be communicated to the eye-ball, and suppuration take place within, destroying vision forever.

The cure consists in guarding against exposure to large fires, much light, or cold; and in bathing the eyes, morning and evening, with a little warm milk and water, and twice or thrice through the day with a very weak solution of sugar of lead, or of white vitriol.

When the inflammation is considerable, a blister to the nape of the neck, and the occasional use of a grain of calomel at bed time, or the cathartic mixture [*See Dispensatory*] in doses of a tea-spoonful every hour or two, to keep the bowels in a laxative state, are proper.

Should the eye-lids stick together, the edges should occasionally be anointed with simple cerate or a little mercurial ointment, and a drop of the vinous tincture of opium or equal parts of laudanum and water, applied with a camel's hair pencil into the eye four or five times a day.

Excoriations.—From the delicate texture of the skin of infants, *excoriations* readily take place whenever one part of it is in constant contact with another, unless the most careful attention be paid to keep every part dry.

The inflammation termed *galling*, which so frequently occurs in the groin, between the legs, and on the neck of an infant, evidently arises from inattention to cleanliness, and from the use of coarse or new pilches.*

The cure will easily be effected by washing the parts often in cold water, and, after being wiped dry, dusting them with prepared chalk or starch. But if they have been neglected, and become fretted, they require to be washed frequently, with a solution of ten grains of white vitriol, in five ounces of rose water. If the excoriations are situated about the genitals, it may also be proper to apply a thick mucilage of gum arabic, or to cover the part with a little fresh saturnine or simple cerate, to defend it from the action of the urine.

Slight ulcerations, behind the ears of infants, are also very common, and only require to be washed daily with cold water, and covered with a single rag to keep the cap from sticking to them. They are sometimes beneficial, especially during bowel complaints, or teething, and will get well and break out again into very foul sores, several times, without any cause for alarm.

However, when these sores become extensive and painful, it will be proper to apply a blister to the nape of the neck, to draw off the heated serum, and to give now and then a few grains of magnesia and rhubarb, or the absorbent and aperient mixture. [*See Dispensatory.*] The sores should also be well washed with Castile soap and water, and dressed with an ointment composed of one drachm of calomel and one ounce of simple cerate, mixed well together, and spread on each side of a double linen cloth, which must be applied twice a day.

ORIGINAL IMPERFECTIONS.

Infants are not always born in a state of perfection with respect to the structure of their bodies; for, sometimes they have deficient, superfluous, or misplaced parts. Many of these imperfections admit of no remedy, while others may be easily rectified.

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* If children were attentively held over a pan for a month or two, it would be found that they are more cleanly than people suppose, and would supersede altogether the use of cloths, either by night or day.

Flesh Mark.—The most frequent of these imperfections is the flesh mark, or redness on the skin, resembling a stain with a bramble. This may occur on any part—the face, the body, or the fingers. It has been attributed to the effect of the mother's imagination, or to a fright, but without any sufficient cause. It is met with when no such circumstance has occurred, and on the other hand, it is wanting in those cases where, if this had the supposed effect, we would chiefly expect it. The mark may be more or less extensive, and of different shades of colour. It proceeds from the collection of a great many blood-vessels, by which the structure of the part is altered. By pressure, the redness disappears, for the blood is forced out, but it immediately returns. When it becomes elevated and enlarged, then there is an evident pulsation in the part. It grows with more or less rapidity, and at last bursts, and discharges sometimes an alarming quantity of blood.

Pressure applied early, when the mark is on such a part as to bear it, is frequently an effectual means of removing it, or at least of preventing all tendency to enlarge. The application of some stimulant or astringent to the part, if it be small, the cuticle being previously removed by a mild blister, and, also, occasionally employing pressure, will be found useful.

Hare-Lip—Is so well known as to need no description. The treatment of the hare-lip must be varied according to many circumstances, which can only be determined by an experienced surgeon. If the child can suck, the operation by which alone the blemish can be removed, should be deferred till he be several months old at least, as the parts will then be better adapted for retaining the pins by which the cure is accomplished. But when sucking is prevented, the operation may be tried, though it affords only a forlorn hope.

Tongue-Tied.—Infants are born with a thin membrane under their tongue, called the *frænum*, which is sometimes so broad as to require dividing, in order to give freedom to the tip, and to allow the child to take proper hold of the nipple in sucking.

If the tongue is not bound down, and if the child suck the finger when put into the mouth, there is no reason for saying he is tongue-tied. The operation, where it is really necessary, is very trifling, but if incautiously performed, the artery below the tongue may be opened, and much blood lost.

It is easily divided by a sharp pair of scissors, and the operation can never be attended with any inconvenience, or hemorrhage, if it be done with proper caution.

Club-Foot.—The gristly state of the bones of the foot renders a cure in most cases practicable, when the proper means are begun immediately after birth; but if the deformity be not attended to till the infant be some months old, it will be difficult and precarious.

The method by which this disease can be removed is very simple. It is merely the application of proper means to reduce the foot, in the most gradual manner, to its natural situation. These should not be continued only till this is effected, but ought to be kept applied constantly for several weeks after, in order that the deformity may be completely removed. In the most favourable cases, the cure cannot be completed within less than several months, and it often requires even a much longer time.

Natural Passages.—Sometimes the natural passages particularly the bowels, may be shut up, the nostrils or eye-lids may be closed, or the fingers may adhere, or have fleshy attachments, like additional fingers These cases admit of cure only, by a surgical operation. The one generally of the most importance, is the imperforation of the bowel, by which the stools are prevented from passing. This case can only be relieved by a surgical operation, by which the natural passage is opened, and afterwards secured from closing again by the introduction of a bougie.

The *vagina* of the female is also sometimes imperforated. Parents should, therefore, carefully examine the infant, that it may not grow up with a defect which, at a certain period of life, must inevitably prove troublesome, and which, at last, will require an operation to relieve.

Infants have sometimes a discharge from the vagina, a few days after birth; resembling matter; but it is of no consequence, as it goes off of itself in a short time.

When a child does not make water, the use of a silver probe will ascertain whether there be any obstruction, and if there be not, it promotes the discharge.

Sometimes an infant will be very long, perhaps a day or two, before it voids the urine, where no defect or obstruction is to be seen. It will then be proper to rub the belly with some warm brandy mixed with a little oil. Some have recommended it to be rubbed with an onion. Which ever be used, it is advisable immediately afterwards to apply to the belly a bladder half filled with scalded bran, or camomile flowers, or hot water; and lest by some accident it should burst; it would be proper to enclose it in a second bladder. A clyster of thin gruel, with a little oil, should be given, and if necessary, a tea spoonful of castor oil may be swallowed. If the child is in considerable pain, a few drops of laudanum may with propriety be added to the clyster.

Ruptures—Are very common complaints among infants; but are fortunately not attended with so much danger as similar disorders in grown people. The kind, which is in general most immediately dangerous, is that which takes place at the navel, where a great part of the bowels may be forced out, covered only with a very thin and almost transparent skin. If this be so large, that the intestines cannot be pressed back, the child generally dies, in consequence of the tumour inflaming or going into mortification. But if the bowels can be pressed back, and, especially, if the skin of the tumour be not very delicate, there is no risk. The application of a compress, and a suitable bandage round the belly keeps the intestine in its place, and in the course of some time the aperture closes so far as to prevent the protrusion.

A broad piece of flannel, in the form of a roller, together with a piece of adhesive plaster applied over the part, by affording a safe and firm support, proves extremely useful.

When they happen in the groin, all that can be done, is to bathe the part occasionally with equal parts of brandy and vinegar, keep the body open, use the cold-bath, and prevent the child from crying as much as possible. A bandage cannot easily be applied with effect, to so young a patient, though it is still worth a careful trial. In proportion as the infant acquires strength, these troublesome complaints disappear. And nothing is more conducive to this than the continued use of the cold-bath, and paying attention to the state of the belly, as costiveness always aggravates the disease.

There will often appear in the *scrotum* of infants, at birth, a turgescence, which has been called the *watery rupture.* Of this it is proper that parents and nurses should be aware, that it may not be mistaken for the true rupture. From this it will be readily distinguished by its being elastic, and it cannot be made to disappear by pressure, and by its not becoming larger when the infant cries. If it be placed between the eye and a lighted candle, at night, it will be seen to be transparent. It will generally be cured by compresses moistened with vinegar and water, with the addition of as much brandy as the skin is able to bear, or by the repeated application of cloths dipped in a solution of two drachms of sal ammoniac in eight ounces of water. But the best method is to puncture the bottom of the tumour with the point of a lancet, which is attended with very little pain and soon effects a cure.

Another little complaint like the watery rupture, is tumefaction of the prepuce, which also arises from extravasated water, and is a partial dropsy of the skin.—The complaint will be removed in a few days, by washing the part frequently with lead water, or by applying a poultice made with it and the crumbs of bread, and by keeping the bowels open.

DISEASES OF CHILDREN,

REQUIRING MEDICAL TREATMENT.

Before we proceed to the consideration of those disorders requiring medical treatment, it may be proper to give a hint in regard to the doses of medicine. In prescribing for children, the chief difficulty lies in fixing the appropriate dose; and hence medicines more frequently fail with them, or are over-dosed, than with the adult. As a direction, therefore, it is proper to examine in a general manner, the proportions fit for this early period of life.

Thus, seven years require half the dose of an adult.
Three years - - - - - - - - - the fourth.
One year - - - - - - - - - - the sixth.
One month - - - - - - - - - the tenth.

With these proportions in view, where no peculiarity of constitution exists, the doses stated will generally succeed.

SNUFFLES.

This term is given to a disease, which generally affects children within the month, and most commonly in the first or second week, on account of the noise made in respiration. The discharge is much more abundant than that which attends common *cold.* It is, from the first, purulent and thick, and afterwards turns thin.

Children afflicted with this malady are always of a weakly, unhealthy habit; and though having apparently no particular complaint, they seem incommoded from a stoppage of the head, which is particularly perceptible in sleep when their breathing is difficult. A purple streak is observable on the verge of the eye-lids, as an attendant on this disorder, with a general fulness externally, about the throat and neck. Its duration extends to several weeks; and when it departs, it is usually succeeded by a disorder of the bowels and other complaints.

This disease appears with various degrees of violence. . The chief symptom that gives uneasiness here is the difficulty of breathing through the nose; which arises from an inflammation of the membrane that lines the posterior nostrils and throat. By this inflammation extending, every part comes to be affected, even to the stomach and bowels; and hence the great and increasing debility it quickly occasions. The stools are thick and pasty, and of a peculiar green or blue colour.

From this account of the disorder, the state of the bowels is a circumstance which must be more attended to, than in almost any other disease. To this end, one or two tea-spoonfuls of castor oil should be given every day, so as to procure four or five evacuations daily.—The bark should be given in a decoction or clyster, joined with cordials, to support the strength of the child. The same remedies should be exhibited to the wet nurse.

The acrimony of the discharge on the adjacent surfaces of the nose and throat, should be prevented by washing the parts frequently with warm camomile, or elder-flower tea, and afterwards applying a little sweet oil. Where convulsions are threatened, or occur, laudanum is very proper, after the operation of laxative medicines; and in many cases, the anodyne should be given two or three times a-day. In this disease, blisters are improper, as tending to produce gangrene of the part.

CUTANEOUS AFFECTIONS.

Infants are much subject to an eruption called the *gum*, which assumes a considerable variety in its appearance in different cases, and even in the same individual.

RED GUM—Is the most common and usually appears a short time after birth, and occasionally recurs till all the milk teeth are cut. The red gum of infancy, consists of a number of small, red, elevated spots. The top is clear, and the base is of a vivid red. This eruption is scattered over the trunk of the body, and sometimes on the cheek and forehead. On the feet the spots are still larger, more distinct, and sometimes a clear fluid is found at the top. When the redness round the base is considerable, the rash has at first sight an appearance of measles, but there is no fever, nor sneezing, nor watery eye, nor cough; on the contrary, the infant is in perfect health. In general it is necessary only to keep the bowels open with the absorbent and aperient mixture, or magnesia, and to keep the child moderately warm, otherwise the rash striking in, may fall upon the bowels and produce fever.

YELLOW GUM—Is merely a species of jaundice, but is in general of very short duration. It affects most children in a greater or less degree, and usually appears within a week, or much earlier after birth. It proceeds from the absorption of bile, and is known by a yellow colour of the skin, or even of the eyes, and is preceded, and attended by sleepiness, and carelessness about sucking.

It is readily removed by the exhibition of three or four grains of ipecacuanha, or a few drops of antimonial wine, to excite vomiting, and by keeping the bowels open by the occasional use of calomel, the absorbent and aperient mixture [*See Dispensatory*] or a watery infusion of rhubarb. Should the symptoms continue, the emetic ought to be repeated after two or three days, and one or other of the above aperients given every other day.

White Gum—Appears after the period at which infants are subject to the former variety; consisting of a number of white, hard, elevated spots, the base of which is sometimes, but not always, surrounded with a little redness. It resembles the itch, and is sometimes mistaken for it: but it is not infectious, nor is it itchy, unless the child be kept dirty, and the parts are irritated. It requires no particular treatment; merely cleanliness and attention to the bowels. In speaking of this eruption it may be proper to mention, that there is also another, which still more resembles itch, though it generally is rather later appearing than the white gum. It consists of soft, smooth, shining elevations of the skin, forming small papulæ, or eminences, differing little in colour from the neighbouring skin. They are itchy, and if the top be scratched off, a clear water oozes out, and if the scratching be frequently repeated, they become red and bloody, or covered with a little dark scab. By washing with soap and water, and rubbing the parts three times a-day with lemon juice, or a solution of borax in vinegar, the complaint may be removed; but if it be neglected, it may become similar to the itch and require the same remedies.

Tooth-rash—Consists of very small red spots or papulæ, set so closely together, as to form patches from the size of a six cent piece to that of a dollar, especially on the extremities; whilst on the body the papulæ are larger, more inflamed, and at a distance look like measles. This requires only a gentle laxative occasionally.

Milk-blotch—Is another cutaneous disease, which appears on lusty children, especially about the time of teething. It is a scabby eruption, which generally appears first on the cheeks or forehead, and then spreads over the face. The pustules are red, and the top soon becomes covered with a scab, consisting of different layers. This often puts on a very unpleasant appearance but is nevertheless of an innocent nature, and it has been observed that those children who have been much loaded with it, have usually been healthy, and have cut their teeth easily. A remarkable circumstance attending this eruption is, that however thick and long continued the scabs may be, the crusta lactea never excoriates, nor leaves any scar on the parts, unless improperly treated.

The milk-blotch is itchy rather than painful. It generally proceeds from too full diet, or a plethoric habit, and therefore requires not only to have the diet lowered, if the child be weaned, or the nurse fed upon less animal food, if on the breast, but also, to have occasionally a laxative. Local applications should be used with caution; but if the eruption be very itchy and troublesome, and do not yield to a change of diet and laxatives, it may be washed with lime water, or the saturated solution of borax in vinegar three times a-day, or with a scruple of sal ammoniac, dissolved in six ounces of rose or spring water.

The anxiety parents and nurses often express to have those ugly appearances removed, has induced many practitioners to interfere unnecessarily and improperly. It should always be remembered, that such eruptions are critical and salutary; and therefore, when from excessive itching it becomes necessary to apply to them any of the above washes, or a weak solution of sugar of lead, or, what is preferable, a weak solution of white vitriol, gentle laxatives are to be given.

An eruption very similar to the above, frequently takes place during teething, and is a most obstinate and troublesome complaint, rendering the infant extremely restless, from the heat, itching, and irritation which attends it. Besides the period of attack, there are other circumstances which distinguish this eruption from the former, viz: there being a redness of the skin round the edge of the incrustations; an ichorous or clear-coloured exudation, which concretes, issuing from the surface of the scabs; and the disease having a tendency to spread over every part of the face which is touched with that exudation.

The ordinary unctious applications generally aggravate this affection. The best remedies, therefore, are brisk laxatives, as infusion of senna and manna, rhubarb or salts, and cream of tartar, sometimes sulphur and a wash composed of linseed oil and lime water, or of one part of the acetite of ammonia in four parts of spring water, or half an ounce of borax in a gill of sharp vinegar. With either of these, the scabs may be washed evening and morning.

Copper-coloured Blotches.—Eruptions of this kind on the buttocks or soles of the feet, occurring from within a week to a fortnight after birth, indicate a diseased state of the infant's habit, which requires the most serious attention. If they be neglected, ulcerations of the palate, throat, and nostrils follow. Should the child be nursed by another than the mother, the nurse's nipples, arm-pits, and throat become affected.

The only cure for this affection is mercury, which ought to be exhibited both to the nurse in such doses as will affect her milk, and also to the infant, in doses adapted to its strength.—[*See Venereal Disease.*]

Erysipilas or Rose—Is a very formidable disease with infants. It appears generally at an earlier period, commonly within a few days after birth. It most commonly first appears on the toes or fingers, which look swelled and bluish, as if from cold; but sometimes it begins at the belly, or about the shoulder or neck, or at the inside of one or both thighs, accompanied with fever. The part is of a purple or livid colour, and is to be distinguished from other affections by the hardness and uniform increased thickening of the inflamed skin.

The best practice at the outset, is to dust the part very frequently with fine flour or hair powder, and keep the bowels open with gentle doses of calomel and epsom salts. If suppuration take place, the abcess ought to be early opened. [*See St. Anthony's Fire.*]

Both infants and children are subject to other eruptions of the skin, than those we have enumerated, of which it is impossible to convey an accurate idea by mere description. But we will observe, as a general rule, that all eruptions, however different in forms and appearance, may be divided into two classes, viz. those of a temporary, and those of an indefinite duration.

The former are commonly ushered in with symptoms of general indisposition—the latter break out gradually, without any derangement of the ordinary health. The former are owing to some disorder of the stomach or bowels, or some interruption of the usual excretions or secretions. The latter are, probably, in most instances, the effects of some diseased condition or action of the lymphatic system, though sometimes they may be occasioned by a local affection of the skin itself. In all cases where symptoms of indisposition, such as heat, restlessness, sickness, or oppression, a few grains of ipecacuanha, or, what is preferable, a dose of calomel that shall both vomit and purge, together with the warm bath, should be first prescribed, and afterwards occasional purgatives, with absorbents, and a suitable regulation of the diet, are to be advised. But where the eruption is unaccompanied by fever, or marks of indisposition, some of the medicines termed alteratives, as calomel in very small doses, antimonial wine, salts, sulphur, &c. are the remedies chiefly to be depended upon. In some cases, other topical applications, besides the warm-bath, are required to allay the irritation, arising from the excessive heat, and itching of the skin. The most efficacious are, milk and water, decoction of bran, the saturated solution of borax in vinegar, weak solution of white vitriol or potash, the acetite of ammonia, much diluted, and equal parts of lime water and oil.

When the body is much covered with eruptions, and they remain long out, attention should be paid to their not being repelled suddenly by any exposure to cold, or by any other improper treatment; but should they happen to strike in, we may then have recourse to the tepid bath and light cordials, as wine whey, in order to solicit their return to the surface, which will be of the greatest consequence should the child suffer from the repulsion.

These cutaneous affections will be found owing either to some ill quality in the breast milk, a heating regimen, or errors in diet. It is only necessary to avoid the occasional causes, and the infant will not be troubled with them.

THRUSH, OR SORE MOUTH,

Is an eruption of white spots, resembling little pieces of coagulated milk, generally appearing within the mouth, on the lips and inside of the mouth, and sometimes affecting the whole alimentary canal.

This disease is apt to affect the nipple, producing excoriation; whilst on the other hand, a sore nipple may produce thrush. In general, it proceeds from a disordered state of the stomach and bowels, occasioned by giving too much spoon-meat. It may also be produced by exposure to cold, damp weather, and some peculiar states of the atmosphere.

In three or four days these spots grow yellow, and soon after drop off, and gradually disappear, leaving the skin on which they have been seated of a bright red colour.—It is usual for nurses to have immediate recourse to borax, but although this may clean the mouth, it does not remove the cause, and, if early employed, the spots will quickly re-appear.

In the treatment of this complaint, the most approved practice is to give a dose of rhubarb and magnesia first, which generally corrects the disordered state of the bowels; and for two days, or until the spots begin to change their colour, a tea-spoonful of cold water, or a liquor prepared by mixing with the white of one egg, three table-spoonfuls of cold water, and a little white sugar, should be frequently put in the mouth. When the spots become yellow, borax and honey, in proportion of one drachm of the former, finely powdered, to an ounce of the latter, and well mixed together, will have an excellent effect in cleansing the mouth, and healing the ulcers, especially when the milk adheres much to its surface. A little of this paste may be put on the child's tongue, as often as may be necessary to keep the parts clean; which will be licked to every part of the mouth, and will effectually do, without putting the infant to pain, by forcibly rubbing it on. But the cure is not permanent, unless the occasional causes are avoided, and the absorbent and aperient mixture, [*See Dispensatory*] or magnesia, be given to subdue the feverish state of the system.

SICKNESS AND VOMITING.

Infants sometimes, are very suddenly seized with a sickness, and inclination to vomit, which they resist as long as possible. This adds greatly to their distress, and prolongs it. The breath is sour or ill-smelled, the eye inanimate, the lips slightly livid, the countenance ghastly, and the child loathes the breast. These appearances are highly alarming to an observer, and, if the child has been previously complaining, will indeed indicate great danger. But when they come on suddenly, especially if the stomach has been loaded, or some improper food given, the death-like aspect presently passes off. The child is speedily relieved, first by vomiting, and afterwards by sleeping. If there be no appearance of spontaneous vomiting taking place, four or five grains of ipecacuanha should be given.

Vomiting is a frequent occurrence with infants, and is not to be considered as morbid, unless it be attended with sickness, ill-smelled breath, and discharge of cheesy or sour stuff. Thriving children puke often after sucking, but then they generally throw up only a mouthful at a time, without straining, or being ill. This requires no medicine. But vomiting, accompanied with sickness or paleness, and dull appearance, demands attention. It either proceeds from disorder of the stomach, and in that case, is relieved by a gentle emetic, and if necessary, rubbing the pit of the stomach with a little laudanum; or it is a symptom of some serious indisposition, or affection of the head, which must be determined by the presence, or concomitant appearance, of other symptoms, such as fever, screaming, drowsiness, spasms, &c. Vomiting depending on teething is distinguished by the state of the mouth.

COSTIVENESS,

Is natural to some children, and acquired by others. When constitutional, it is better to do but little, particularly if the child be healthy in other respects. But, if the child, after having been some weeks open, become costive, and do not thrive, or if from the first it has been costive, is pale and delicate, and is subject to fits of crying, there is no doubt of the propriety of interfering. It is better to interfere too soon than too late.

Calomel is generally a safe and useful laxative, and may be given at first every day, for three or four days, in such a dose as to make the bowels rather open; half a grain, a grain, or even more, according to the effects, may be employed. This practice often prevents the continuation of costiveness, or, if it do not, some other laxative is to be given daily, or once in two days, to procure an easy stool. We may employ the sirup of senna [*See Dispensatory*] calcined magnesia; manna, or sulphur, and occasionally in place of these, a *suppository* or *dry clyster*.

Temporary costiveness may be at any time removed by a *suppository* made of a small piece of yellow soap, shaped like a large writing quill. This may be rendered more powerful, if necessary, by being dipped previous to use, into some powdered salt. Another excellent suppository is prepared by scraping a candle until it is rendered sufficiently small and tapering to introduce it into the anus about an inch, or two inches at most. It will be better to dip it in oil before used. A strip of paper or linen cloth twisted up, and well moistened with oil, is easily introduced, and forms also a good *suppository*, or *dry clyster*.

COLIC PAINS.

The delicacy of the bowels of infants renders them affected by the most apparently trifling causes; and hence many circumstances induce colic pains, which are known to exist by the drawing up of the infant's limbs, and by its agonizing manner of crying. Colic may be induced by costiveness, by cold, by damp clothes, by the liberal use of spoon-meat, particularly if the bread have been a little sour, by some fault in the milk, or it may accompany thin and slimy purging, which is sometimes produced by the injudicious use of magnesia or other laxatives.

In slight degrees of colic, applying warmth to the belly, and giving the child a little fennel tea, generally affords relief. But in the more violent and dangerous kind of colic, the treatment must be varied according to the circumstances of the individual case. If it seem to arise from accumulated slime, or from some fault in the milk, suitable doses of cold pressed castor oil, or magnesia and rhubarb, together with the warm bath, or fomentations of the belly are to be advised. But if the bowels be quite open, and the complaint have been excited by exposure to cold, or some external circumstance, along with the warm bath it will be proper to rub the belly with some laudanum. When constipation attends colic, the most active means of opening the bowels are to be had recourse to. For this purpose large doses of calomel, followed by castor oil, together with laxative clysters, are required.

It is a common practice to give carminitive medicines to infants, in order to remove flatulence, such as gin and water, grated ginger, and spices of different kinds. These ought never to be employed when the infant is the least feverish, or when the bowels are in a costive state. If any flatulence remain after costiveness has been removed, and there are no febrile symptoms, a drop or two of laudanum, or double the quantity of paregoric, in fennel tea, may be given with advantage. Dr. Burns recommends the following mixture in doses from ten to twenty drops in a little water, as being always safe, and generally effectual, in ordinary cases of colic. Take two drachms of tincture of assafœteda, twenty drops of oil of anise or fennel seed, and an ounce of mucilage of gum arabic, rubbed up together with a lump of sugar.

CONVULSIONS:

The convulsions of children are generally preceded by slight symptoms of distortion of the face, as involuntary laughter when asleep or awake, squinting of the eyes towards the nose, or turning them upwards, the child, at the same time, changing to a bluish colour. The fit itself is distinguished by distortions, more or less general, according to the violence of the attack.

Convulsions may be produced by wind, or irritations in the bowels, dependent on worms, costiveness, indigestible food, acrid stools, &c. or by teething, by breathing confined air, by the striking in of some eruption, or by the affection of the brain itself. When convulsions occur suddenly in a state of previous health, they are frequently attended with little hazard, but when they occur in the course of some other disease which the child has been labouring under for some time, they are highly dangerous.

When a child is seized with convulsions a great consternation immediately prevails, and without some determinate rules, either nothing will be done, or very contradictory plans may be adopted.

The first general rule, in such cases, is to order the tepid bath, which is proper in every instance. When the motion is strong, it allays it; when it is slight, it brings on a state of quiet repose. The water should be agreeably warm to the hand, and the child should be kept in it up to the neck for some minutes, if he do not get relief sooner. If he be very pale or languid, the addition of a table-spoonful of mustard or hartshorn to the bath is useful.

Second: Whilst the child is in the bath, a common injection is to be prepared, and administered immediately after he comes out; and afterwards a dose of calomel, proportioned to his age, is to be given.

Third: If the child seem to be sick, or oppressed in breathing, or about the stomach, or have been known to have had something which has disordered the stomach, vomiting should be excited by tickling the throat with a feather during the fit, or giving ipecacuanha as soon as the child can swallow.

Fourth: After the child is taken out of the bath, it will be useful to rub him, particularly over the spine and the stomach, with oil of amber, or with spirits, having about a sixth part of hartshorn added. If any rash have struck in, rubbing the surface with camphorated oil of turpentine, or applying a small warm plaster over the stomach, will be useful.

Fifth: If the gums be swelled, or there be any appearance of teething, the part should be instantly scarified. And when they proceed from *worms*, the remedies detailed in that disease are to be employed.

The convulsions, or inward fits, of infants a day or two old, require chiefly gentle laxatives, such as magnesia and rhubarb, or calomel, and sedulous attention to nourishment, with gentle friction over the surface, especially of the belly, with camphorated spirit of wine.

TEETHING.

The symptoms that mark dentition are, heat and swelling of the gums, and a tendency to drivel or slaver much, with starting, and thrusting of the fingers into the mouth.

There are only twenty teeth evolved in infancy, ten in each jaw, and these are not permanent. They, generally, begin to appear between the sixth and eighth month, and the two middle incisors, or front teeth of the lower jaw, usually come through first, and, in about a month, the corresponding teeth above appear. Then the two lateral incisors below, and next those above, come out. About the twelfth or fourteenth month, the first, or anterior double teeth, appear on each side below, and then above. Between the sixteenth and twentieth month, the space between the first teeth and grinders, is filled up with those which are called the eye-teeth, and from this time till the thirtieth month, the other back teeth appear; so that when the child is two years and a half old, he, generally, has all his milk teeth. These continue till it is six or seven years of age, and then are succeeded by others, which are stronger, and more permanent. Many children cut their teeth with great ease, but others suffer considerably. On inspecting the gums of a child, who is not yet teething, they are found to be sharp, and the skin which covers them, seems even to form an edge or seam along the gum. But when a tooth is growing up, the gum, and the skin which covers it, are put on the stretch, & the appearance of seam at that part is lost.

In the treatment of the effects of teething, we have chiefly three objects; First, to allay irritation: Secondly, to alleviate urgent symptoms: and Lastly, to support the strength.

First: It is customary to give the child a gum stick, to rub on the itchy gum; but if this be made of any hard substance, it is apt to injure the gum, or the child may knock it into his eye.— A crust of bread is often employed, but if a piece of it break off in the mouth, the child may be choked. The fingers are instinctively used, nor is there any risk of the child, by being indulged in this respect, requiring afterwards a bad habit. The most effectual means of allaying irritation, is to cut the gum when it is distended or swelled. This is often indispensably necessary for the removal of urgent symptoms; it generally gives much relief, and is always safe and innocent. It does not, even if the incision should heal, render the future progress in any degree more tedious. It is not painful, but gives, on the contrary, immediate ease.

Experience teaches us that a costive state of the bowels adds greatly to irritability of the system; and, therefore, if there be no looseness, it is always proper to give gentle laxatives, such as rhubarb and magnesia, during dentition. Cool air is highly useful, but the child is not to be imprudently exposed to a great degree of cold. It should be frequently out, and ought to have the cold bath in the morning, and be washed with cold water at night.

When there is considerable irritation, rubbing the spine and surface of the belly with a little laudanum, is useful.

Secondly: In the treatment of urgent symptoms we must, besides cutting the gum, which is a general rule, have recourse to such remedies as the particular nature of the affections require. When the fever is high, that is, when the skin is very hot and the pulse quick, it is proper to give laxatives, and use the warm bath, morning and evening, in the place of cold water. If the child be lusty and drowsy, indicating a tendency to affection of the head, it will be necessary to give a pretty smart dose of physic, and apply either one or two leeches to the forehead, according to the age. If these means do not speedily relieve the child, the head should be shaved and a small blister put on. We never have cause to regret having used prompt and decided means of preventing danger, but have much oftener to reproach ourselves with not having used early, those remedies which the result of the case shows to have been proper.

Purging, if severe, or attended with weakness or emaciation, is to be restrained by giving clysters with laudanum; and, occasionally, small doses of calomel, magnesia, and rhubarb, or the absorbent and aperient mixture, when the stools are unnatural.

Sickness, loathing of food, and ill-smelled breath, are relieved by a gentle dose of ipecacuanha.

A short cough, as well as tenderness of the eyes, will be removed by a burgundy pitch plaster, applied to the back. Ulceration of the gum requires gentle laxatives; and the strength is to be supported, and the parts bathed, with port wine and water.

Thirdly: The strength is to be carefully supported under the irritation, by the breast milk, or if the child be weaned, by beef-tea, arrow-root, tapioca, sago, rice-milk, milk and water, &c. In some cases, where the child is recently weaned, it will be of advantage to give it the breast again. If it do not take sufficient food by the mouth, nutritive clysters must be resorted to.

In every instance nourishment is essential; but in some, particularly when the weakness is increasing, cordials, such as wine-whey, must be added.

LOOSENESS, OR CHOLERA INFANTUM.

A purging is one of the most frequent complaints of infancy; however, it should be remembered that it is not always a disease; but on the contrary, it often proves a remedy. By it, nature commonly throws off an offending cause. Its causes, therefore, and treatment, require very particular attention.

Both vomiting and purging very often arise from unwholesome milk or other food, from teething, from a moist cold air, as well as from the sudden disappearance of some eruption on the skin. The purging is not then hastily to be stopped, until the offending cause be removed.

The treatment, therefore, of this complaint, must consist first in removing, as far as possible, the irritating matter, and then checking the particular symptoms. If the offending cause appears lodged in the stomach, the cure should begin by giving an emetic, or a dose of calomel that will both vomit and purge, and afterwards small doses of rhubarb, or the absorbent and aperient mixture. [*See Dispensatory.*]

The nature of this disease is to be often drawn from the appearance of the stools; and the treatment ought, in a great measure, to be regulated from that circumstance. Thus, when the stools are sour and curdled, after the necessary evacuations have been premised, the absorbent mixture, or prepared chalk, or magnesia, in suitable doses, combined with grated nutmeg, or some aromatic, is strongly pointed out, in addition to opening medicines.—When again the stools are slimy, and of a clayey colour, in addition to the former plan injections of soap-suds are not to be omitted, and castile soap dissolved in milk will be found a useful drink. When the stools are watery and bloody, or fœtid, castor oil and calomel are the best purgatives, and if attended with much griping, clysters of milk and soap-suds should be often repeated.

The extent and continuance of this plan, must depend on the obstinacy of the complaint. To these medicines, opiates, according to the age of the child, may be given with the greatest advantage at bed-time, provided there exists no febrile symptoms.

When the child is cold and languid, the purgative medicines ought to be joined with some aromatics, as grated ginger, and given less frequently: and during the intermediate days, as well as the evening after the physic has operated, a cordial diet, such as the addition of wine in gruel or arrow root, with plenty of nutmeg, should be allowed. The occasional exhibition of injections of thin starch and laudanum, in the proportion of ten drops of the latter to two table-spoonfuls of the former, must be had recourse to, in order to moderate the discharge when the strength is much reduced.

Besides this internal treatment the warm-bath, or bathing the child night and morning in a strong decoction of oak bark, will be found exceedingly beneficial. External applications are also of the greatest service, as cloths moistened with the camphorated spirits, or wrung out of brandy stewed with spices, and applied warm to the belly and extremities. Blisters to the legs and arms, have also their good effects, and ought to be repeated in obstinate cases. Wearing flannel next the skin, or a bark jacket, will also prove an auxiliary.

A soft flannel bandage, passed frequently and with some degree of tightness, round the body immediately over the stomach and bowels, is found to be a very useful remedy in this complaint.

In the treatment of all abdominal complaints, much attention is necessary to the nature and kind of food or nourishment taken. The food of children, with this view, should be deprived of acid as much as possible; hence, instead of milk, animal food, in the form of beef tea, or mutton broth, is preferable. When there is an habitual disposition to purging, there is no diet superior to arrow root; and when this is not at hand, flour baked in an oven till it breaks into a powder, and afterwards made up with boiled milk, is a good substitute. Tapioca and sago are also very nutritious. Indeed it is proper to alternate the food occasionally, from one kind to another, and frequently to exhibit the animal food in a solid form, when the stomach rejects fluid nourishment. The change of the wet nurse sometimes makes a necessary part of the treatment; and when a child has been weaned, resuming the breast has often had the happiest effect.

Although powerful astringent medicines are commonly inadmissible in cases of purging during infancy, great benefit has sometimes seemed to accrue from the use of a mixture composed of twenty grains of toasted rhubarb, two drachms of prepared chalk, a table-spoonful of brandy, previously set fire to and allowed to burn as long as any spirit remains, and three table-spoonfuls of water.—The dose is from one to two tea-spoonfuls every hour or two while awake. The dewberry root boiled in milk [*See Materia Medica*] will also be found a valuable astringent medicine in this troublesome complaint. In several hopeless cases burnt cork [*See Page* 403] has wonderfully succeeded.

In many instances, a change of air alone has proved an effectual remedy, after every other means had failed.

DISCHARGE FROM THE VAGINA.

Infants have sometimes a discharge from the vagina, a few days after birth, resembling matter; but it is of no consequence, as it goes off itself in a short time.

Children of five or six years old are subject to a mucous discharge resembling the genuine whites of adults, which will in some instances be in an excessive quantity, so as to run through all their clothes. The disease readily yields to a little cooling physic, as the cathartic or absorbent and aperient mixture, and keeping the parts perfectly clean with soap-suds or lead water. When it is obstinate, balsam capivi may be given thrice a-day, and if the child is puny, the tincture of steel is a suitable remedy.

WORMS.

The symptoms enumerated as most commonly distinguishing worms, are pain and eructation of the stomach, variable appetite, foul tongue, fœtid breath; the belly full, hard and tense, with occasional gripings or pains in different parts of it, particularly about the navel; irregular state of the belly, heat and itchiness of the fundament, urine white and limpid, and often discharged with difficulty. With these symptoms are joined a dull appearance of the eyes, often dilation of the pupil, itchiness of the nostrils, short dry cough, slow fever, with evening exacerbations and irregular pulse, grinding of the teeth in sleep, &c.

However, many of the above symptoms occur in other diseases, and I believe, as was suggested to me by the learned Dr. Caldwell of Philadelphia, that worms are much oftener *suspected* to be the cause of children's complaints, than what they really are.

For the cure of worms, two indications arise; first, to expel them, and secondly, to prevent their generation.—The first may be effected by giving a dose of calomel at bed-time, and rhubarb the next morning to work it off.—The pink-root [*See Materia Medica*] has long been held in high estimation as a vermifuge. It may be given in the form of tea, with milk, sweetened, for breakfast, observing not to continue the use of it, if it is found to affect the child's eyes. The bark of the Pride of China [*See Materia Medica*] is much extolled of late as a remedy for worms. My friend Dr. Grimes, of Savannah, said, that he considered it one of the best vermifuges we are acquainted with. He directs a tea to be made of the bark of this tree, and as much of it taken during the day, as the child can bear without producing vomiting, purging, or considerable weakness of the limbs.

External applications have also been found useful for the removal of this complaint. These consist of a liniment made of equal parts of beef's gall, aloes and sweet oil or fresh butter, rubbed on the belly every night; or a plaster made of dry rue and aloes, or gall mixed up with a little turpentine and lard, and applied over the region of the belly, taking care to cover the navel with a piece of cotton.

The future generation of worms will be prevented by avoiding greasy food, and by taking the rust or tincture of steel thrice a-day, joined with bitters to give tone to the bowels.

WATERY HEAD.

This disease is distinguished by pain of the head, accompanied with nausea, sickness, and other disorders of the animal functions, without any evident cause, and sudden in their attack; variable state of the pulse; constant slow fever; and in the advanced stage of the disease, dilation of the pupil of the eye, with a tendency to a comatose state.

It most frequently takes place between the age of two and ten years, and with children of a scrofulous habit. It may, however, arise from falls and blows on the head.

The first stage of the disease is marked by loss of appetite, and a degree of melancholy and uneasiness, without the child being able to fix on any particular cause. Pain in the head is next felt, especially above the eyes, and in a direction betwixt the temples. In very young subjects, pain in the head is indicated by the child putting his hand often to his head, and waving it about. This pain gradually extends, and is at last felt more particularly in the arm and leg of one side. The affections of the stomach next commence, and alternate with pain and uneasiness of the head. The febrile symptoms, though pretty constant, are milder in the morning, but suffer also an evening exacerbation. Vomiting occasionally occurs, but costiveness is a leading symptom. The tongue is a little affected, except towards the end, when it assumes a scarlet colour, and sometimes becomes apthous. As the disease advances, all the symptoms of hectic are conspicuous, and during the whole disease, the child shows a strong propensity to the bed, or a desire to avoid being moved.

This disease is truly inflammatory in its commencement, and can only be treated with success by the early employment of those means which are best calculated to subdue inflammation; such as copious and repeated bleedings, the application of leeches or cups, blisters to the head and temples, and an issue behind the neck.

Besides these external remedies, active purges, as calomel and jalap, must be frequently administered, and if possible a ptyalism should be produced by the use of mercury, either in the form of calomel in small doses, or by rubbing in the unction.

If acid prevails, the absorbent mixture [*See Dispensatory*] must occasionally be given, and during the continuance of fever, the tincture of digitalis or foxglove [*See Dispensatory*] will be found an auxiliary.

After subduing the inflammatory action of the system, opium or laudanum may be employed with advantage, to relieve the spasm, or pain of the head, when it is considerable. In the last stage of the disease, cold bathing, and the use of tonic medicines, may be required to invigorate the system.

CROUP, OR HIVES.

This disease, peculiar to children, is a species of asthma, with violent catarrhal symptoms. It is most common in low marshy countries, or on the sea coast, and in wet and cold seasons. Indeed it is readily occasioned by any thing wet or damp, or which obstructs the perspiration.

There are two species of croup, the *acute*, or inflammatory, and the *chronical*, or lingering.

The former is attended with a very quick pulse, cough, hoarseness, and difficulty of breathing, soon after, and sometimes even before the occurrence of the croaking noise, which is the characteristic of this disorder. As the disease increases, the pulse quickens, the heat augments, and an excessive restlessness takes place. The breathing becomes more and more difficult, and laborious, and the peculiar wheezing sound which accompanies it, so increases, as to be heard at a considerable distance.

The symptoms continue to increase in violence, until a spasm of the muscles of the parts taking place, the patient is suffocated; the disease often completing its course in the space of three or four days and nights.

The extreme degree of danger which always accompanies this disease, and the rapidity with which its symptoms proceed, show that immediate remedies are requisite to arrest its progress. Therefore, on the first appearance, blood-letting, both general and topical, should be employed, and repeated two or three times a-day, according to the violence of the symptoms, and habit of the patient. Immediately after bleeding, an emetic should be administered, and the sickness kept up for several hours, or even days, by small doses of the antimonial solution. [*See Dispensatory.*]

Inhaling the steams of hot vinegar and water, and embrocating the throat with the volatile liniment, have also their good effects. Besides which, the application of a cataplasm of mustard, or blister to the throat, are not to be neglected, if the symptoms are the least alarming.

The decoction of seneca or rattle-snake root, [*See Materia Medica*] is a valuable medicine in this dreadful complaint. It should be given at first in such doses as to excite vomiting, and afterwards in smaller doses, to keep up a nausea at the stomach, and to produce perspiration. Onions [*See Materia Medica*] are also celebrated as a sovereign remedy.

The tincture of digitalis, or foxglove, is considered by some a good remedy, if employed in the early stage of the disease.—Attention should always be paid to keep the bowels open by castor oil, or some aperient medicine.

The most speedy and efficacious of all remedies, in this alarming disease, which has come under my notice, is calomel in very large doses. For this valuable remedy, I candidly acknowledge myself indebted to my excellent and very learned friend, professor Davidge, of Baltimore.

From him I have been emboldened to use it, in desperate cases, in doses from thirty to sixty grains, to children. On my own daughter, only four years old, and apparently in the very act of suffocation, I used it in the dose of at least sixty grains. The cure was almost instantaneous. Among other instances of cure as surprising, was one in the infant of my amiable friend, Mrs. Chalmers, lady of the Rev. Mr. Chalmers, of Washington, with the dose of forty grains. The cure was so immediate, that the overjoyed parent insisted I would instruct her in the remedy, for fear, on the next attack, I might not be in the way to prescribe. On learning I had given her infant, not more than between three and four years old, forty grains of calomel, she was excessively frightened, and exclaimed, "you have killed my child!" and indeed she could hardly be persuaded for some time, though her eyes told her the contrary, that I had not *killed her child.*

So powerful is the effect of this medicine, that it suddenly removes the disease without having recourse to other means. It acts on the stomach, bowels, and skin. In cases not very alarming, I have given calomel in smaller doses, conjoined with ipecacuanha, with good effects.

The flaxseed sirup is peculiarly beneficial in all diseases attended with cough, and, therefore, should not be omitted in this. To prevent a relapse, and to restore the strength of the patient, it will be proper, at the close of this complaint, to use the cold bath and to give bark in any form which is most agreeable and convenient.

The latter, or *chronical croup*, is produced by spasm and unaccompanied with fever. A most important remedy in this species, if early used, is the warm bath, immediately followed by a clyster, to which some of the juice of raw onions may be added. A tea spoonful or two of the juice may also be given by the mouth, and some applied externally. [*See Materia Medica.*] If the symptoms do not yield to this treatment, an emetic should be administered, and after its operation, a dose of laudanum will be proper.

Some children are troubled with this complaint for several years, and then seem to out-grow it. A flannel shirt, light diet, cold bath, change of air, gentle exercise, and whatever strengthens the body, are the best preventives.

WHOOPING COUGH,

Is a contagious disease, attacking in paroxysms of a convulsive suffocating cough, with a loud noise or whoop at each respiration, and generally terminating by vomiting. It is clearly the effect of a specific contagion of a peculiar nature, and highly active, affecting, like the small pox and measles, but once in life.

The treatment of this disease must be regulated by the degree of fever and spasm. When the fever is considerable, bleeding becomes clearly indicated, as well as blisters over the breast, and the use of laxative medicines, together with such as may determine to the surface; of which class, the decoction of rattlesnake root, [*See Materia Medica*] or the antimonial solution are to be preferred.

When the spasmodic state is most predominant, and the symptoms of fever mild, emetics will be highly useful, followed by a dose of the anodyne sudorific drops [*See Dispensatory*] at bedtime. If a free use of the flax-seed sirup is not sufficient to allay the cough, laudanum, or paregoric, when fever does not forbid, may be given with the greatest advantage.

In this tiresome disease, I have found no remedy, when there is little or no fever, superior to the following mixture, in doses from thirty to sixty drops or more, given in sirup or tea, three or four times a-day, until a slight strangury is excited. Take of tincture of bark, one ounce and a half; paregoric, half an ounce; tincture of cantharides, one drachm.—Mix. The strangury, usually comes on about the third day, and the whooping-cough seldom continues longer than a few days afterwards.

A grain of assafœtida, administered four or five times a-day, proves oftentimes a very useful remedy in cases of whooping cough.

When the disease is recurrent, and returns some time after its apparent departure, as it frequently does on taking cold, an emetic, a dose or two of castor oil, and the anodyne sudorific drops, laudanum, or paregoric, at bed-time, as the symptoms may indicate, will quickly remove it. A milk and vegetable diet is peculiarly proper in this complaint; and, when the patient is debilitated, a change of air and tonic medicines, as the bark or columbo, will be found necessary.

RICKETS,

Consist in an enlargement of the head, belly, and joints, flattened ribs, and general emaciation, with a bloated or florid countenance. This disorder generally takes place from six months to two years of age, and arises either from unhealthy parents, or from the children being improperly nursed, kept wet, dirty, in a close damp air, without due exercise.

Weakness and relaxation being the cause of this complaint, its remedy must of course be to promote digestion, and to brace and strengthen the solids. Hence a nutricious and cordial diet, with exercise in the country air, is indispensable. Along with this, the cold bath and tonic medicines, as bark, columbo, and steel, to warm and invigorate the constitution, are peculiarly proper; but they should not be entered upon without previous purging with calomel and jalap. The tincture of rhubarb [*See Dispensatory*] should also be occasionally employed, to keep the bowels in a regular state. However, nothing will be found more effectual in recovering the patient, than a generous diet and cold bathing, particularly in salt water. Sea bathing constitutes, perhaps, the most promising remedy in this disease.

ST. VITUS'S DANCE.

The disease called chorea, or St. Vitus's dance, occurs most frequently from the age of eight years to the period of puberty It approaches with languor, and indifference with regard to the usual amusements; a variable, and sometimes a keen appetite, continued costiveness, occasionally combined with a flabby, lank state of the belly, but much oftener with a hardness and swelling, particularly at the lower part. The stools are not of natural appearance. Presently convulsive affections of the face take place, and are succeeded with twitches and starting of the extremities. The patient often cannot walk easily, in consequence of one leg twisting in before the other. He is perpetually changing his position, and fidgetting when sitting.

This disease generally proceeds from, or is connected with, a costive state of the bowels; and nothing gives so essential relief, as regular and continued purging. When the patient is old enough to swallow aloetic pills, two, or sometimes more, of these, may be taken twice or three times a-day; or where these cannot be used, infusion of senna, epsom salts, or other purgatives, must be employed; and it will be found that usually, though not always, the stools are fœtid, or unnatural in their appearance. This, so far from weakening the patient, has a contrary effect; for although he may, perhaps, have five or six stools in a day, the pulse becomes stronger, the countenance brighter, the step firmer, and the gesticulations or twitches abate, and at last, after a period, varying from a fortnight to several weeks, or some months, the cure is completed. The cold bath and tonics may sometimes be useful; but the great remedy is the steady exhibition of purgatives, which have been introduced into general practice, and with success, by Dr. Hamilton, senr.

☞ *Scald Head, and other diseases peculiar to children, which have not been noticed here, will be found in the preceding part of this work.*

MATERIA MEDICA.

Life's lowest, but far greatest sphere I sing,
Of all things that adorn the gaudy spring;
Such as in deserts live, whom, unconfined,
None but the simple laws of Nature bind;
And those who, growing tame by human care,
The well-bred citizens of gardens are;
Those that aspire to Sol their sire's bright face,
Or stoop into their mother Earth's embrace;
Such as drink streams, or wells, or those dry fed,
Who have Jove only for their Ganymede;
And all that Solomon's lost work of old
(Ah! fatal loss!) so wisely did unfold.
Though I the oak's vivacious age should live,
I ne'er to all their names in verse could give.

COWLEY.

"HOW wonderful are thy works, O Lord! in wisdom hast thou made them all; the earth is full of thy riches."

In all parts of these his GLORIOUS WORKS, is their admirable fitness to one another, and their constant subserviency to the *good* of *all*, we behold the WISDOM and GOODNESS of the GREAT CREATOR.

But in no department of his works do mingled *wisdom* and *goodness* shine with greater lustre than in the vegetable kingdom. There is scarcely a plant that *greens* the fields, a flower that *gems* the pasture, a shrub that *tufts* the garden, or a tree that *shades* the earth, which does not contain certain medicinal virtues, to remove our pains and to heal our diseases.

The American continent, though the last found, is not the least favoured of GOD in this respect. Embracing almost every clime and soil of the globe, it richly abounds with drugs of every healing quality.

The common saying, that every *country* contains the best cures for its own diseases, seems fully verified in America. Here, above all countries, is the ague, and here, exclusively, is the grand cure, the Peruvian bark tree, or dogwood. And here too, exclusively, is found the Spanish fly, the tobacco, the Jamestown weed, the pink and snake roots, besides those other valuable plants, equal to the ipecacuanha, rhubarb, jalap, &c. &c. which have hitherto been imported at a great expense, though not always genuine; but which may now be obtained in our own fields and woods, both unadulterated and cheap.

Worthy of the high character of Americans, many gentlemen of the finest genius among us, have explored the medical treasures of our country, and have shown an eagerness to make known the precious means to preserve the health and lives of our citizens. First on the list of this noble band of philanthropists stood that bright literary and professional genius, the late professor Barton, from whose "COLLECTIONS TOWARDS A MATERIA MEDICA OF THE UNITED STATES," much valuable matter has been selected. If by the laws of Rome, "a civic crown was adjudged to the man who saved the life of a single citizen," what eulogy is sufficiently great to be attached to the memory of him who, besides illuminating several other walks of ornamental and useful knowledge, has, by investigating the virtues of our native vegetables, laid the foundation whereby millions of our worthy citizens may be rescued from an untimely death.

Professor Chapman, succeeding the lamented Barton, as teacher of Materia Medica, gave aditional interest to the studies connected with his department, and by the application of his powerful talents to the acquisition of appropriate learning and discovery, has made a handsome accession to the stock of knowledge before extant. In the chair of Materia Medica, this accomplished teacher displayed advantageously those happy qualities which have since secured to him the post he now enjoys, professor of the theory and practice of physic, &c.

Professors Bigelow of Harvard University, and Elliott of South Carolina, have since communicated to the world the results of their valuable scientific labours in a series of interesting lectures and elaborate publications.

Much is due also to professors Dexter, Mitchill, Hosack, Cox, Baker, Caldwell, and to Doctors Mease, Cutler, Thatcher, &c.

From the valuable discoveries and communications of these gentlemen I have, with great industry and care, compiled an AMERICAN MATERIA MEDICA, exhibiting, in alphabetical order, the *names*, *characters*, and *qualities* of our best medicinal plants hitherto discovered, together with the diseases they suit, and their proper doses, and forms of administration; the whole stripped of technical terms, and making, as I humbly hope, one of the most complete systems for family use now extant.

AGARIC. See *Touchwood.*

AGRIMONY, *Agrimonia*—Grows two or three feet high, in hedges and the margins of fields—blossoms in July on long spikes, yellow. It is known by the vulgar name of *cuckold*, from the seeds sticking to the clothes in the fall of the year.

In whey or tea it forms a good drink in fevers. The juice of this plant, or a strong infusion of the roots, two handfuls to a quart of boiling water, and sweetened with honey, is an excellent medicine in the jaundice, scurvy, and habitual diarrhœa or looseness. Dose of the infusion half a pint; of the juice a wine-glassful three times a-day. The herb has been applied externally to fresh wounds.

ALDER, BLACK, *Alnus Nigra*—Sometimes called Virginia winterberry, grows in moist places, generally sending up several slender stalks to the height of ten feet, and bears a red berry.

The bark is tonic, and accordingly is used in substance, or in strong decoction, like the Peruvian bark, in intermittents, and other cases of debility, as dropsy, gangrene, &c. The inner bark in the shape of poultice externally, with the decoction internally, a handful or two boiled slowly in three pints of water to a quart, is celebrated both by professor Barton and Dr. Mease, as of admirable use in arresting the progress of mortification. A strong decoction of the berries formed into a sirup with molasses in doses of a wine-glassful, or two tea-spoonfuls of the powder of the inner bark, is said to be a good purge.

Dr. Thatcher recommends a decoction or infusion of the bark taken internally in doses of a tea-cupful, and employed also as a wash, for the cure of cutaneous eruptions, particularly of the herpetic kind.

ALEXANDER. See *Parsley, Wild.*

ALUM ROOT, *Heuchera Americana*—Called also American Sanicle. The root is a very intense astringent. It is the basis of a powder which has lately acquired some reputation in the cure of cancer. Professor Barton observes that he does not believe that the alum root has cured genuine cancer, but that it has proved very beneficial in obstinate ulcers, which have been mistaken for cancers. He says it is one of the articles in the Materia Medica of our Indians, the powdered root of which they apply to wounds, ulcers, and cancers.

ANGELICA, *Angelica*—Grows in marshy woods and hedges, flowering in June and July. It is frequently cultivated in our gardens.

Every part of this useful vegetable partakes of its aromatic virtues, but especially the root, which in the form of powder, tincture or tea, is useful in flatulent colics. Conjoined with dogwood bark, or any other tonic, it may, like the Peruvian bark, be employed with advantage in intermittents and low stages of fever. The dose, one tea-spoonful, in substance, of the former to two of the latter. It may also be employed in the form of strong decoction, in doses of a gill, or in cold phlegmatic habits, in tincture, either alone, or with dogwood berries, centaury, lemon peel, or any other articles of the bitter and tonic class. A strong decoction of the root, combined with red oak bark, a large handful of each to a pint of boiling water, makes an admirable gargle for relaxed and spongy gums, and ulcerated sore throat.

APPLE, PERU. See *Thorn Apple.*

ARBUTUS. See *Bearberry.*

ARROW ROOT, *Maranta Arundinacea*—Is cultivated in the southern states. A table-spoonful makes a pint of the finest jelly in nature, which affords the most nutricious food in acute diseases for children. To persons labouring under bowel complaints, as diarrhœa and dysentery, it is of itself a remedy.

The jelly is made in the following manner—To a table-spoonful of the powdered root, add as much cold water as will make it into a thin paste, and then pour on boiling water through the spout of a kettle, stiring it at the same time briskly, till it becomes a clear jelly; after which season it with sugar and nutmeg, and to render it still more palatable, a little wine or lemon juice may be added. But to children, blending it with new milk is best.

ASARABACCA SWAMP, *Asarum*—Grows in low lands. It has but two leaves, which rise immediately from the root, and divide from one stem. The flowers are purple and bell-shaped and proceed from between the leaves.

The whole of this plant has a nauseous bitter taste.—The root, from a half to a table-spoonful in powder, operates both upwards and downwards. In the form of infusion, a half-handful to a quart of boiling water, is said to be serviceable in the whooping-cough, in doses of a table-spoonful to children every half hour, or oftener, until it vomits; and in doses of a tea-cupful three times a-day, it has been used with success to promote the menses, or *courses*.

AVENS COMMON, *Geum Urbanum*—Grows a foot high by fences and borders of fields. The blossoms are white or yellowish in July. Its smell resembles that of cloves.

A strong tincture of the root, two handfuls, steeped in a quart of spirits, given to the quantity of a half wine-glassful, or the powder, in doses of a tea-spoonful, several times a-day, has afforded an excellent remedy in intermittents and other disorders where strengthening medicines are requisite. It is said to be equal to the Peruvian bark.

There is another variety of this plant, called water avens, throat root, cure-all, which is to be found in boggy meadows. The blossoms are purplish, and appear in May. Its properties are the same as the preceding. A decoction of it has been found beneficial as a gargle in ulcerated sore throats, which probably gave rise to the name of *throat root*, or *throat wort*.

BACK-ACH BRAKE. See *Fern Female*.

BALM, *Melissa Officinilas*—Makes an excellent tea in fevers, and when sweetened, and acidulated with the juice of lemons or cream of tartar, forms a most grateful beverage.

BARBERRY, *Berberis Vulgaris*—Grows along the sides of roads in hedges;—leaves oblong, tender, and subject to the rust; the flowers are in clusters; the fruit oblong and acid, the stem is defended by three thorns.

A double handful of the berries boiled in three quarts of water to two, and given in doses of a tea-cupful four or five times a-day, sweetened with white sugar, is extolled as a remedy in diarrhœa, dysentery and jaundice.

BASTARD IPECACUANHA. See *Ipecacuanha American*.

BAYBERRY, *Myrica Cerifera Humilis*—Called also Dwarf-Candleberry Myrtle, grows in swamps to the height of two or three feet, and bears numerous green berries, of which tallow is made.

The bark of the root has been considered a good remedy for the jaundice. The powder of it in doses of twenty or thirty grains, has been employed as a mild emetic. The inner bark, in poultice, applied morning and evening to scrophulous swellings, and drinking a tea-cupful of a strong infusion of the leaves, is said to have wrought surprising cures in a few weeks.

BEARBERRY, *Arbutas Uva Ursi*—Bears whortleberry—wild cranberry. Is a low evergreen shrub somewhat resembling the myrtle.

The leaves have a bitter astringent taste, and unquestionably possess great medicinal virtues, especially in relieving the *irritation of the stone*, gravel, and old cases of gonorrhœa, menstrual discharges, also catarrhs and consumptions.

The dose—half a pint twice or thrice a-day of a decoction made of the leaves, a handful to a pint, or a tea-spoonful in substance, two or three times a-day.

BEECH DROPS. See *Broomrape Virginia.*

BENNE, *Se Samum Orientale*—Is now cultivated in South Carolina and Georgia. The leaves by infusion afford an excellent mucillaginous drink, which is used with manifest advantage in dysentery, diarrhœa and cholera infantum.

The seeds yield a pure and pleasant oil, which in doses from one to two wine-glassfuls, acts well on the bowels. It is now generally used at the tables of the wealthy, and from the specimen I had of it at the table of my honourable friend governor Milledge, near Augusta, I consider it equal to the best Florence or salad oil.

BETH ROOT, *Trillium Rhumboydum*—Grows in meadows about a foot high—the leaves oval, three at the top of each stalk, one flower of a purple colour, bell-shaped, producing a small berry, that contains the seed—the root of a brown colour externally, bulbous and full of small fibres.

The powder of the root, in doses of one tea-spoonful three or four times a-day, is said to be exceedingly useful in spitting of blood, immoderate discharge of the menses, or in cases of discharging bloody urine. It is also said to be a good application, in the form of poultice, to putrid ulcers, and to obviate gangrene or mortification.

BIND WEED. See *Potatoe, Wild.*

BITTER-SWEET. See *Nightshade, Woody.*

BLACKBERRY, OR DEWBERRY.—These, though different in name, are nearly, if not entirely, the same in nature.

They both bear the same kind of berry, which, when ripe, is pleasant and wholesome.

The roots of these vines, but especially of the dewberry, are famous as astringents. From my own observation in practice, two handfuls of the clear roots in three pints of milk or water boiled to a quart, and given in doses of a tea-cupful every two or three hours, has often cured obstinate diarrhœa and dysentery, when the best medicines of the shop had failed.

BLACK SNAKE ROOT. See *Virginia Snake Root.*

BLAZING STAR. *See Devil's Bit.*

BLOOD ROOT, *Sanguinaria Canadensis*—Has a variety of names, as Red Root, Puccoon, Indian Paint, Turmeric. It grows about a foot high in rich woodlands, and flowers in April. The leaves are roundish and deeply indented; somewhat like the white oak leaves—stems naked supporting single flowers; blossoms white. When the fresh root, which is about the size of the little finger, and blood red, is broken, a juice issues in large drops resembling blood.

According to Dr. Downie, the root in powder, from twenty to thirty grains, is strongly emetic. Professor Barton considers it nearly equal to the Seneca or rattle snake root in cases of ulcerous sore throat, croup and hives, and other similar affections.—Professor Dexter celebrates it in doses of one grain of the powdered root, or ten drops of the tincture, every two or three hours, as an excellent diaphoretic in colds, pleurisies, rheumatism and other inflammatory complaints.

A tincture may be prepared by steeping a handful of the root sliced in half a pint of spirits. It may also be exhibited in the form of decoction, a handful to a quart of boiling water, and a table spoonful for a dose every two or three hours. The blood root is considered the chief ingredient of the quack medicine known by the name of Rawson's bitters; recommended as a remedy for the jaundice. The juice of the root is said to be good for destroying warts.

To Professor Smith, of Hanover, N. H. the world is indebted for the discovery that this plant, used as a powder and snuffed up the nose, is a certain cure for the *polypus*. Professor Smith also found it of great use in the incipient stages of pulmonary consumption, given in large and repeated doses, and in cases of great irritation it was combined with opium.

Professor Ives, of New Haven, considers the Blood Root as a remedy in many diseases of the lungs and liver. He observes, that in typhoid pneumonia, "in plethoric constitutions, when respiration is very difficult, and the cheeks and hands become livid, the pulse full, soft, vibrating and easily compressed, the Blood Root has done more to obviate the symptoms and remove the disease," than any remedy which he has used. He infuses from a scruple to half a drachm of the powdered root in half a gill of hot water, and gives one or two tea spoonfuls every half-hour, in urgent cases. This treatment has often removed the symptoms in a few hours.

Dr. Ives thinks highly of its use in influenza, in consumption, and particularly in whooping cough. He also states that, given in large doses, sufficient to produce vomiting, it often removes the croup, if administered in the first stages. It has been given, he remarks, "for many years, in the country; some physicians relying wholly on this remedy for the cure of the croup."

Dr. Macbride of Charleston, S. C. has found the Blood Root useful in Hydrothorax, given in doses of sixty drops, thrice a day, and increased till nausea followed each dose. He also used it with advantage, in torpor of the liver, attended with colic and yellowness of the skin, a disease common in Southern climates.

BLOODWORT STRIPED, *Lapathum Sanguineum Rubrum*—Grows six or seven inches high, on the sides of banks and in upland woods. Out of the top of the stalk, which is small and bare of leave, grow small purple flowers, which turn into husks that contain the seed. The leaves, three or four in number, lie flat upon the ground, are hairy, and full of red winding veins; the root small, tough, and fibrous.

An infusion of this plant, a handful to a quart of boiling water, in doses of a tea cupful every three hours, is said to be useful in restraining immoderate flowing of the menses, and all other hemorrhages. A strong decoction of the roots with half the quantity of sugar or honey, and formed into a sirup in doses of a table spoonful every hour or two, is beneficial in consumptions or violent coughs. The expressed juice in doses of a wine glassful, and the leaves bruised, and frequently applied to the wound from a snake, or any venomous insect, is said to eradicate the poison.

BLUE CARDINAL FLOWERS. See *Lobelia.*

BONESET. See *Thoroughwort.*

BOWMAN'S ROOT. See *Indian Physic.*

BOXWOOD. See *Dogwood.*

BROOMRAPE VIRGINIA, *Orobanche Virginiana*—Grows from Canada to Georgia, and rises six or eight inches high, of a brown colour, brittle sprigs, but no leaves; the root is bulbous. It is generally found under the shade of the American beech tree, hence it is sometimes called beech drops, but more generally cancer root.

Every part of this plant is considerably astringent, and along with the astringency, especially in the recent plant, there is combined a peculiar and extremely nauseous bitterness. It has been celebrated as a remedy in dysentery, but its principal reputation is in cancerous affections. It is supposed this formed a part of the celebrated cancer powder of Dr. Hugh Martin, whose success in the management of many cases of this dreadful disease, has been acknowledged by the regular practitioners of Philadelphia.

It is certain, says professor Barton, that the powder of cancer root has been of great service, externally applied to obstinate ulcers, some of which had resisted all the ordinary applications. The fresh bruised root has also been applied with good effects to cancerous sores. In the form of decoction it has been found useful as a wash to gallings in warm weather, or excoriating of the skin. It is also esteemed a good application in cases of St. Anthony's Fire.

BUCK THORN, *Spina Cervina*—Grows in hedges. It is a prickly bush; which flowers in June, and produces in the fall a round black berry containing four seeds.

Equal parts of the expressed juice of the berries and molasses, or half the quantity of sugar, with a little calimus or ginger, formed into a sirup by a gentle fire, is said to be a good purgative medicine in doses of a large wine glassful, and is much used in the cure of dropsies.

BURDOCK, *Arctium Lappa*—Grows on the road side, on rubbish and ditch banks, bearing purplish blossoms in July and August.

The juice of the fresh leaves, or an infusion or decoction of the roots, operates gently on the bowels, sweetens the blood, promotes sweat and urine, and is esteemed serviceable in scorbutic rheumatic, and venereal disorders. The juice is given in doses of a wine-glassful, and the decoction half a pint three times a day.

BURNET SAXIFRAGE, *Pimpinella*—Grows about a foot high. The leaves are variously shaped, flowers in September; the seeds are furred and egg-shaped.

The root, in the form of decoction, a handful to a quart of water, is esteemed by some a useful medicine in asthma, coughs, and obstructions of the menses, in doses of a wine glassful twice or thrice a day sweetened.

BUTTERFLY WEED. See *Pleurisy Root.*

BUTTERNUT. See *Walnut, White.*

BUTTON SNAKE ROOT.—"The button snake root grows in South Carolina and Georgia, in poor pine land; the root bulbous, with numerous fibres, of a pungent nitrous taste; the leaves or blades long, narrow, pointed and saw-edged. A stalk shoots up in autumn, to the height of three feet, bearing globular prickly flowers, of an ash calour, which from a fancied resemblance to buttons of an old fashion, gives its name.

"This root is a *powerful sudorific;* but in cases of gangrene and foul ulcers, is perhaps superior to any thing yet discovered. The mode of applying it, is in the form of poultice by boiling it soft."*

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* For the above I am indebted to my very honest, but unfortunately too credulous friend, Paul Hamilton, Esq. formerly secretary of the navy, whose zeal and success in exploring the virtues of our indigenous plants can never be suf-

CALICO TREE, *Kalmia Latifolia*—Broad-leaved laurel called also winter green; grows seven or eight feet high in swamps and moist rocky pastures; blossoms are white, tinged with red in June or July. There is another species, *Kalmia Angustifolia*, narrow-leaved or dwarf laurel, called also ivy, lambkill; blossoms reddish, variegated.

A decoction of the plant externally applied has often cured the itch; but like all other poisons it should be used with great

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ficiently applauded. For these and many other patriotic virtues, a kind Providence was pleased to raise him up a son as disinterested and public spirited as himself; I mean that extraordinary youth, lieutenant Archibald Hamilton, who, in defence of his country, went forth in the early period of life to meet the veteran tars of Great Britain.

He was a midshipman on board the United States frigate, when after a short action she captured the British frigate, Macedonian. His activity and valour in that brilliant affair were so conspicuous, that the gallant Decatur assigned to him the honourable and pleasing duty of bearing the British colours to the seat of government. With uncommonly good fortune he had arrived at Washington on the very evening that the president and his lady, with the heads of departments, at a splendid ball, were celebrating this glorious victory. I had the pleasure to be one of the party and never shall I forget the looks of his venerable father, his most amiable mother, and charming sisters, when this blooming young warrior was ushered into the crowded ball room, with the trophies of American valour. The joy manifested on this occasion was not confined to his relations alone; for it was to be seen in the countenance of every one present, but more especially in the young females, who, as was very natural to suppose, from his unassuming and graceful deportment, could not conceal the tender emotions of their hearts.

To the honour of the president, this modest and amiable youth was soon after promoted to a lieutenancy. He followed the fortunes of commodore Decatur, when he shifted his flag from the United States to the President; and was with this intrepid officer when in that single frigate he endeavoured to fight his way through a British squadron. In this most unequal conflict the President was overpowered, but not until she had completely silenced one of the hostile frigates. By the last shot that was fired from the enemy, the gallant young Hamilton was killed.

To say he was brave to the height of that heroism which has raised the infant navy of his country to be the admiration of the world, is to say but half his praise. The far nobler praise was his, of having rendered himself the idol of his brother officers, and his numerous relations and friends—to all of whom he has bequeathed the inexpressible pleasure of attaching to his memory every thing that was amiable and good.

caution. An ointment, made by simmering the leaves in hog's lard, is good for the scald head and obstinate sores. According to Dr. George G. Thomas, an obstinate diarrhœa has been cured, by the decoction made from an ounce of the leaves in half a pint of water, boiled to half, and thirty drops three or four times a day. In this form it has also been used internally with great success in the scald head.

CALIMUS, OR SWEET FLAG, *Acorus Calimus*—Grows in marshy situations, and in shallow water, and may be known by the long sword-shaped leaves, resembling those of the blue and yellow flags, but narrower, and of a brighter green. The root is like that of the blue flag in appearance, but has a strong aromatic smell, and a warm pungent taste. The flavour is greatly improved by drying.

The root possesses stomach virtues, and is frequently grated into water, and given to children for flatulent colics, free of fever. It is sometimes used as an ingredient with dogwood, cherry bark, centaury, &c. in morning bitters, as a preventive of the ague in low marshy situations.

CAMOMILE, *Chamæmelum*—Grows well in our gardens. An infusion, or tea, made of the flowers, is excellent to warm and strengthen the stomach in cases of indigestion, loss of appetite, and other complaints arising from debility. It is also of great use in doses of a tea cupful three times a day, as a preventive to the ague and fever, and bilious fever in sickly situations. In the form of fomentation and poultice it is serviceable in discussing hard tumours.

CAMOMILE, WILD. See *Mayweed.*

CANCER ROOT. See *Broomrape Virginia.*

CANDLE-BERRY MYRTLE. See *Bayberry.*

CARAWAY, *Carum Carui*—A choice aromatic; grows kindly in our gardens. The seeds assist digestion, strengthen the stomach, and are serviceable in flatulent colics. The dose of the seeds in powder, from one to two tea spoonfuls to adults.

CARROT, WILD, *Daucus carata.*—The wild carrot grows two or three feet high in meadows and swamps, and flowers in July. The seeds have an agreeable aromatic smell, and in a slight degree, a warm pungent taste.

An ounce or half a handful of the seeds infused in a pint of water, and taken in doses of a tea cupful every hour or two, is said to give immediate relief in suppression of urine, and is also serviceable in promoting the menses.

The roots of the carrot cultivated in our gardens, beaten to a pulp, form an excellent application to cancerous and other ill-conditioned ulcers, allaying the pain, checking the suppuration and fœtid smell, and softening the callous edges. A marmalade of carrots, on account of their strong antiseptic qualities, has been successfully used for preventing and curing the sea scurvy. An infusion of these roots has also been found useful in gravel complaints.

CASTOR OIL, *Ricinus Communis*—Flourishes well among us. The kernels yield almost a fourth part of their weight in oil, which is obtained from them either by expression or decoction. Expression is the best method of preparing; but the common mode is to shell the seeds, and boil them in water, and as the oil rises, to skim it off.

Castor oil is a gentle and useful purgative, and is a most efficacious remedy for the colic or dry belly-ach, and also dysenteries, in doses of a wine glassful every two or three hours until it operates. In doses of a tea spoonful, it is the most suitable purge, when not rancid, to expel the meconium from new-born infants.

CATGUT, OR GOAT'S RUE, *Galega Virginiana.*—It is vulgarly called cat-gut, from the resemblance of some of its roots to the article of that name.

A decoction of the roots is reputed to be an excellent medicine for destroying worms.

CELANDINE, THE GREATER, *Chelidonium Major*—Grows about two feet high, in meadows and by running brooks, has many stalks, with larger joints than is common in other plants, very easily broken; the leaves large and saw-edged; the flowers, consisting of four leaves, are yellow; after which come long pods enclosing black seeds; the roots long, reddish externally, and yellow within and full of yellow juice.

Twenty or thirty drops of the juice, or half a tea spoonful of the dried root in powder, in a cup of new milk, morning and night, is said to be beneficial in dropsy, green sickness, and cutaneous eruptions. The juice rubbed on warts, ring and tetter worms, effectually cures them. A poultice made of this plant boiled in milk, or the roots roasted, and mashed in vinegar, is extolled by some as an excellent application to disperse scrophulous tumours on the neck.

CENTAURY, *Centaurium Minor*—Is a fine stomachic bitter; and either in a simple infusion, or united with calimus or angelica root, is excellent in relaxations of the stomach and general debility.

CHERRY-TREE, WILD, *Prunus Cerasus Virginiana.*—The bark of this tree is an excellent substitute for the Peruvian bark. I have myself frequently employed it in the cure of ague and fever, bilious fever, and other diseases where tonic medicines were proper. In intermittents of long standing, I have found it more efficacious when united with the Virginia snake root, in the proportion of one part of the latter to four of the former. It may be employed either in powder or decoction in the same doses as the Peruvian bark. A strong infusion of it in sound cider, is said to be useful in the jaundice. A decoction of the bark will be found a good wash to ill-conditioned ulcers. The cherry of the tree, when ripe in autumn, is much used in the Southern States, for making bounce and cordial.—The gum of the common cherry-tree is a good substitute for the gum arabic.

CHICK-WEED, RED, *Annagallis Phenicea*—Called also red pimpernel, guach-hul—Is cultivated in many gardens, and grows spontaneously near Baltimore and Havre de Grace.

According to the deposition of Valentine Kettiring to the Legislature of Pennsylvania, and report made by their committee, the red chick-weed is a specific in that most dreadful of all discases, the hydrophobia, or bite of a mad dog. The dose for an adult is a small table spoonful of the dried leaves in powder. For beasts the dose is much larger.

CINQUEFOIL, *Potentilla Reptans*—Grows on pasture grounds, and is something similar to strawberry. The stalks trail along the ground, and have but five leaves on each stalk, placed together, of an unequal size, and bear a yellow flower.

The whole of the plant, particularly the root, in the form of decoction, a handful to a quart of water, or milk, boiled slowly, and sweetened with loaf sugar, is recommended as a remedy for the dysentery and bowel complaints. The dose for adults is a tea cupful three or four times a day, and one-third or half the quantity for children.

CLEAVERS. See *Goose Grass.*

COAKUM. See *Pokeweed.*

COCK-UP-HAT, OR YAU WEED, *Stillingia*—Grows on the high dry lands of the Southern States, and is much used there as a cathartic medicine. It is employed in the cure of that hideous disease, the yaws, and is said to be a specific in the venereal disease.

COHUSH, OR PAPOOSE ROOT, *Caulophyllum Thalictroides*—Grows about two feet high, in low moist rich grounds near running streams, and on is lands that have been overflowed. The leaves grow on small stalks near the top of the stem, which resembles the hand and fingers. The flowers are of a pale blue colour, which yield a berry something like grapes. The root is composed of many fibres, and is crooked resembling the rattle snake root.

An infusion of the root, a handful to a quart of boiling water, in doses of a tea cupful three or four times a day, or the same quantity steeped in a quart of spirits, in doses of a wine glassful twice or thrice a day, is highly extolled by the country people as a remedy for the rheumatism, and serviceable in cases of obstruction of the menses and dropsical complaints.

COLT'S FOOT, *Tussilago Farfara*—Grows about eight inches high, in moist situations, producing yellow flowers, early in the spring, which appear before the leaves. These are soon succeeded by large roundish leaves, which have a bitterish mucilaginous taste.

It is said a decoction of the leaves and flowers, two handfuls to a quart of water; with or without milk, taken freely, is serviceable in coughs, consumptions, diarrhœas, and dropsical complaints. The leaves powdered fine, and used as snuff, removes giddiness and obstructions of the head.

COLOMBO AMERICAN, *Columba Americana*—Grows plentifully in the western country, in the vicinity of the Ohio river, and from abundant experiments, is found fully equal to the imported. It has long been esteemed a powerful antiseptic and tonic, and as such, has been employed with manifest advantage in gangrene, cholera morbus, bilious vomitting, or purging, bilious fever, indigestion, want of appetite, &c. It may be given in powder, in doses of a small tea spoonful every three or four hours, or in decoction in doses of a tea cupful. Two or three ounces of the root steeped in a quart of spirit, form an excellent bitter, which, when taken in mint water, or infusion of orange peel, in doses of a table spoonful, is excellent for moderating the retching in pregnant women.

COMFREY, *Consolida*—Grows about two feet high in moist situations near springs, but is cultivated in our gardens. The leaves are large, similar to water dock, flowers of a pale blue colour; the roots long, rather thicker than a man's finger, mucilaginous, and black externally, but white within.

A handful of the roots boiled in milk, and given in doses of a tea cupful three or four times a day is a popular remedy in dysentery, bowel complaints, and the fluor albus or whites. It is also beneficial as a diet drink in the clap, or in other cases attended with a burning heat in making water.

CORIANDER, *Coriandrum*—Is cultivated in our gardens. The seeds are warm, and of a pleasant flavour, and in doses of a tea to a table spoonful, have been found useful in cases of indigestion and flatulence. When mixed with senna, they more effectually correct the odour and taste of the infusion, than any other aromatic. They also form an excellent addition to ingredients for bitters.

COW PARSNIP, *Heracleum Spondylium*—Is found in hedges, meadows, and pastures; but should be carefully distinguished from the hemlock or wild parsnip that grows in hedges and is poisonous.

According to Dr. Orne of Salem, it has been often used with success in epilepsy, especially in cases of indigestion with flatulence. The dose is three drachms of the powdered root, taken daily, and a strong infusion of the leaves and tops drank at bed time.

CRANE'S BILL, *Geranium Maculatum*—Improperly called by some crow foot. It grows five or six inches high in meadows and woods; has long slender stalks, with seven long narrow leaves at a joint. The root is generally crooked and knotted, blackish on the outside and reddish, has a rough taste, with an aromatic flavour.

When applied externally, it is highly extolled for its styptic power, in stopping hemorrhages of wounded vessels. The powdered root in doses of a tea spoonful thrice or four times a day, or a decoction in milk, used as a common drink, is said to be excellent in checking immoderate menstrual discharges, also the whites and gleets, and obstinate diarrhœa.

The following account of the efficacy of crane's bill, as stated by Dr. Mease, in the Medical Museum, deserves the attention of the reader.

The son of Mr. David Cooper, near Woodbury, partially divided the artery at the wrist with the point of a hatchet in trimming a tree; the wound bled profusely, and an aneurismatic tumour of the size of a pullet's egg was quickly formed. Dr. Hendry, who was immediately called, applied a tourniquet, and also a piece of flat lead to the tumour; and apprehending that the usual operation would be necessary, requested the assistance of Dr. William Shippen from Philadelphia. On the arrival of that gentleman, the operation was resolved on; when the father of the young man insisted upon the trial of a vegetable remedy, which he said he had learned the use of from one of the aborigines of our country. He immediately repaired to the woods, and returned with some of the specific, which was pounded in a mortar with a little cold water, and applied to the part, and in a short time, to the great satisfaction of the sufferer and his friends, checked the bleeding. The tourniquet was left on as a precautionary measure, but fortunately no occasion offered for using it. In the course of a few days the wound healed, and the young man had no further trouble.

A man in pruning a tree, divided the stout muscles of the fore-arm in an oblique direction; the wound was full four inches in length, and bled profusely from a large artery, and numerous smaller vessels. His shirt sleeve was filled with blood; for being made tight round his wrist and fore arm, it prevented the blood from escaping, and forming a coagulum round the bleeding orifice, checked for a short time a further effusion.

The powerful effects produced by the geranium in the former case induced Dr. Hendry to apply it in the present; accordingly he procured some of the roots, and after washing and pounding them, filled the wound therewith: the effect upon the smaller vessels was almost instantaneous in checking the profusion of their contents, and the bleeding in a short time entirely ceased; and although, as in the former case, the tourniquet was very properly suffered to remain, yet no occasion offered for using it.

Another case occurred of a wound in the ankle from a scythe, which had bled so profusely as to cause the man to faint; but on the application of the geranium by Dr. Hendry as above, it ceased in a short time.

In the instance of a violent vomiting of blood, which had resisted a variety of remedies, an infusion of the plant in water, produced the desired effect in a few minutes.

Another instance mentioned to me by Dr. H. of the astringent effects of the geranium, was that of a young man who had a most obstinate hemorrhage from the socket of a jaw-tooth, which had been extracted. An attempt was made by a physician from Philadelphia to close the bleeding orifice by burning it with a red hot needle, but without effect; on the application, however, of the geranium, the bleeding soon ceased. In consequence of the virtues of the geranium having been so often experienced about Woodbury in cases of hemorrhage, the inhabitants have been induced to cultivate the plant in their gardens; and it would be well if their example were followed by every one in the country; for though Providence has diffused the valuable plant over every part of our country, yet as it grows principally in the woods, and the accident it is intended to relieve may admit of no delay, and often happens in winter when the plant cannot be found, it should be transferred to every garden, that it may be at hand when wanted.

CROSSWORT. See *Thoroughwort.*

CROW FOOT, *Ranunculus Bulbosus*—A very acrid plant, growing in meadows and fields. The leaves or roots bruised and applied to any part of the body, will soon raise a blister, and ought to be used when the Spanish flies cannot be obtained. The roots collected in the fall, may be very well preserved through the winter by burying them in some fine dry sand.

CUCKOLD. See *Agrimony.*

CUCKOW BREAD. See *the following.*

CUCKOW PINT, *Arum Maculatam*—Also called lords and ladies, wake robin, dragon root. The leaves are generally bespangled with black and white spots, and striped in gaudy style; whence the country people have given it the name of lords and ladies. The root is bulbous, resembling a small turnip.

Both this and the leaves, in a fresh state, are extremely acrid and have been used with advantage externally for blistering, and internally in cachexies, rheumatisms, and all other complaints of cold phlegmatic habits. Of the fresh root, from ten to thirty grains may be taken thrice a-day, in the form of emulsion, with gum arabac, or cherry-tree gum. The root, which should be used fresh, may be kept so for a year, by burying it in a cellar in sand.

CUCUMBER ROOT, *Medeola Virginica*—According to professor Barton, it is a very common plant. The root is white, and tastes a good deal like the cucumber. It possess diuretic properties, and has cured dropsies.

CURE-ALL. See *Avens.*

CURRANTS, *Ribes*—The white, red, and black currants, all grow luxuriantly in our gardens, and when perfectly ripe, and made with sugar and water, into the form of lemonade, serve as a most grateful and cooling drink in fevers.

An infusion of the bark, sweetened with currant jelly, or honey, is an excellent gargle in sore throat, and an infusion of the young shoots is said to be beneficial in eruptive fevers. Currants afford an excellent wine, for making which, the following is an admirable recipe.

Of red or white currants, ripe, take fourteen pounds, broke into three gallons of water, and let stand for two days, when the stalks, &c. will be at top. Press off all the stalks, and while straining the mixture, add twelve pounds of sugar; turn it into a cask, and keep it full enough to let the feculent matter work out—repeatedly removing it, and filling it up, until no more rises, which will be in about fourteen days; add to it one quart of spirits nearly tasteless, or else brandy, and bung up close, keeping it at least six months before it is bottled. Let the currants be gathered free from dew or rain; and if they be spread a day or two before they are used, they will be none the worse. Fourteen pounds will make one gallon of juice, twelve pounds of sugar another gallon; therefore the above ingredients should be equal to five gallons, and enough to fill up with.

CUSTARD APPLE, *Annona Triloba*—Is said to be a good purgative medicine.

DANDELION, *Leontodon Teraxacum*—Vulgarly called piss-a-beds, grows in meadows, pastures, and road-sides and ditch-banks, with yellow flowers; which blow from April to September, and possess the remarkable quality of expanding early in the morning, and closing in the evening.

The root, leaves, and stalk, contain a large proportion of bitter milky juice, which, in doses of a wine-glass full twice or thrice a-day, is good in chronic inflammations of the liver, dropsies, difficulty of making water, and other complaints arising from obstructions of the viscera. It may also be taken in the form of a strong decoction, from a gill to a half-pint twice or thrice a-day.

DEADLY NIGHTSHADE. See *Nightshade deadly.*

DEERBERRY. See *Mountain Tea.*

DEVIL'S BIT, *Veratrum Luteum*—The root of this plant is a very pungent bitter, and is employed as a tonic, either in the form of tincture or infusion. In this last form it has been employed as a vermifuge.

DEWBERRY. See *Blackberry.*

DILL, *Anethum Graveolens*—Flourishes in our gardens, producing seed delightfully aromatic, which, in doses of one or two tea-spoonfuls, is excellent to remove flatulent colics, and assist digestion.

DOCK WATER, OR WATER DOCK, *Rumex Aquaticus*—Grows in wet ditches, mill-ponds, sides of rivers, and in shallow water, flowering in July and August.

Half a pint of a decoction of the leaves or roots, two handfuls to a quart of boiling water, or two or three tea-spoonfuls of the dried roots in powder, taken two or three times a-day, is an admirable medicine to sweeten and purify the blood in scurvy, scald-head, tetter-worm, and other cutaneous diseases. The fresh roots bruised, and mixed with vinegar, or in strong decoction, is a good cure of the ring-worm, and has often subdued that filthy complaint the itch, when quack medicines, and even sulphur, had failed. It is also well worth trying in form of poultice to tumours, and cancerous ulcers.

The *curled dock*, *narrow and broad leaved dock*, which grow in yards and cultivated fields, are all varieties of this useful plant, and possess similar virtues. It is said the narrow leaved dock, applied in the form of fomentation and poultice, to a cancerous sore, and from a pint to a quart of the decoction taken daily, make a perfect cure.

DOGWOOD, *Cornus Florida.*—The bark of this famous tree, which may well be termed the chinchona or Peruvian bark of North America, possesses, like that, all those tonic powers, which give it such admirable control over intermittents, gangrene, and all diseases proceeding from debility.

From my own observation in practice I am abundantly warranted in pronouncing it generally preferable to the imported bark, which is often injured by adulteration. Like the Peruvian bark, but in somewhat larger doses, it may be used in substance or decoction, infusion or tincture, either alone or conjoined with snake-root, or some of the aromatics. But the shape in which it will be found most agreeable, is that of an extract which is easily prepared by boiling the bark, straining it, and then evaporating it very slowly to the consistence of honey. To prevent the fatal effects of buring it, the vessel in which it is evaporated should be of the wide-mouth sort, placed in a large pot of boiling water, and often stirred towards the close of the operation.

The dose is from a half to a whole tea-spoonful, thrice or four times a-day. The beautiful red berries of dogwood, combined with lemon-peel, snake-root, calimus, or any other warm aromatic seeds, form a fine bitter against the common fall complaints.

DRAGON'S CLAW. See *Fever Root.*

DRAGON ROOT. See *Cuckow Pint.*

ELDER COMMON, OR BLACK, *Sambucus Niger*—Grows to the height of a small tree, in hedges, and along the border of meadows: the young shoots are full of pith, and the old stalks empty; flowers in July, and the berry of a blackish purple colour when ripe.

The expressed juice of elder berries put into a plate, or wide-mouth vessel, and evaporated in the sun to the state of an extract, in doses from a tea to a table-spoonful, acts as a good aperient medicine. A tea made of the leaves, a large handful to a quart of boiling water, and taken freely, removes a costive habit, promotes perspiration, and thus proves useful in eruptions of the skin, St. Anthony's Fire, colds, dropsies, and all obstructions of the viscera. The inner green bark, steeped in wine, a large handful to a pint, or made into a strong decoction, purges gently, in doses of a gill. The flowers stewed with lard, form a good ointment for burns.

Elder berries also form an excellent wine, according to the following recipe: Elder wine is made by mixing twelve gallons and a half of ripe elder berry juice, and forty-two pounds of sugar, with thirty-seven gallons and a half of water, that previously has had boiling in it six ounces of ginger, and nine ounces of pimento, bruised and strained off; and when it has nearly cooled, rather less than milk warm, add a pint of thin brewer's yeast, and let it foment for fourteen days, in the barrel, then bung up close, and bottle in six months.

ELECAMPANE, *Inula Helineum*—Grows three or four feet high, in stony pastures, and by the road side: flowers large and yellow, in July and August; and the root, when dry, has an agreeable aromatic smell, and in a decoction sweetened with honey, or in the form of sirup, or a tea-spoonful of the powdered root in molasses, is recommended for promoting expectoration in asthma and coughs. The fresh root in ointment or strong decoction, is said to cure the itch.

ELM, AMERICAN, OR SLIPPERY, *Ulmus Americana.*—My very learned friend, Professor Mitchill, has witnessed its good effects internally in catarrhs, pleurisies, and quinsies, and externally as a poultice for gun-shot wounds, tumours, and all ulcers and sores accompanied with irritation. A tea-spoonful of the inner bark in powder, to a quart of boiling water, or a simple infusion of the bark in boiling water, forms an astonishing rich jelly, which I have often tried with the happiest effects in diarrhœa and dysentery. With the addition of a little sugar, lemon juice, citron or nutmeg, it might be made an excellent substitute for sago, or arrow root.

I am indebted for this improvement to the reverend and very amiable Dr. Gant, many years chaplain to Congress, and physician to Mr. Jefferson. This learned gentleman, universally celebrated for his successful treatment of dysentery, declared to me, with great candour, that he ascribed much of his reputation in that dangerous disease to this fine jelly.

EMETIC WEED, OR INDIAN TOBACCO, *Lobelia inflata*—Grows in dry fields, and rises to the height of one or two feet, with branched stems, flowering in July and August, with blown cups, filled with numerous small seeds. The blossoms are solitary, in a kind of spike, of a pale blue colour. The leaves are oblong, and have a very acrid and pungent taste, similar to that of tobacco.

The leaves collected in August, while the plant is in blossom, and carefully dried and preserved, act as a speedy and excellent emetic, in doses from ten to twenty grains; or it may be exhibited in the form of a saturated tincture, in doses from a tea to a table spoonful.

As it is a medicine of considerable activity, it should be given in small quantities; and the dose repeated every ten or fifteen minutes, until it excites vomiting. From its speedy operation as an emetic, there is no doubt it would be an effectual remedy for the croup and whooping cough. In small doses it must be of great utility in consumptive and other coughs, by exciting expectoration. It is, however, valued on account of its approaching nearer to a specific in that most distressing disease, the asthma, than any other that has been yet discovered.

The following highly interesting observations from the Rev. Dr. M. Cutler, an eminent botanist, who first noticed the virtues of this plant, is related in Dr. Thatcher's American New Dispensatory.

"By chewing a small portion of it, commonly not more than *one* of the capsules, it proves a gentle emetic. If the quantity be a little increased, it operates as an emetic, and then as cathartic, its effects being much the same of those of the common emetics and cathartics.

"It has been my misfortune to be an asthmatic for about ten years. I have made trial of a great variety of the usual remedies, with very little benefit. In several paroxysms, I had found relief more frequently than from any thing else, from the skunk cabbage. The last summer I had the severest attack I ever experienced. It commenced early in August, and continued about eight weeks. Dr. Drury, of Marblehead, also an asthmatic, had made use of a tincture of the Indian tobacco, by the advice of a friend, in a severe paroxysm early in the spring. It gave him immediate relief, and he has been entirely free from the complaint from that time. I had a tincture made of the fresh plant, and took care to have the spirit fully saturated, which I think is important. In a paroxysm, which was perhaps as severe as I ever experienced, the difficulty of breathing was extreme, and after it had continued a considerable time, I took a table-spoonful. In three or four minutes my breathing was as free as it ever was, but I felt no nausea at the stomach. In ten minutes I took another spoonful; which occasioned sickness. After ten minutes I took the third, which produced sensible effects upon the coats of the stomach with moderate puking, and a kind of prickly sensation through the whole system, even to the extremities of the fingers and toes. The urinary passage was perceptibly affected with a smarting sensation in passing urine, which was probably provoked by stimulus on the bladder. But all these sensations very soon subsided, and a vigour seemed to be restored to the constitution; which I had not experienced for years. I have not since had a paroxysm, and only a few times some small symptoms of asthma. Besides the violent attacks, I had scarcely passed a night without more or less of it, and often so as not to be able to lie in bed. Since that time I have enjoyed as good health as perhaps before the first attack. Dr. Cutler states a particular case has been related to him, of an effectual cure of the hydrophobia, or bite of a mad dog, in the last stage of the disease, by this plant. In a disease so formidable as this, it is certainly worthy of trial."

Dr. Bradstreet, of Newburyport, has given the saturated tincture in cases of dyspepsia, also in some cases of a rheumatic nature, with beneficial consequences.

He considers its sensible effects to be very like those of common tobacco, but its medicinal action more speedy and diffusible, and of shorter duration. He thinks that it affects those accustomed to the use of tobacco as readily as others. The active properties of the Lobelia are readily extracted both by water and alcohol. The tincture, however, is most easily kept, and is the most convenient form for exhibition. The tincture is prepared by digesting two ounces of the dried plant in a pint of diluted alcohol. A tea spoonful given to an adult will generally produce nausea and sometimes vomiting. In certain instances, however, much larger doses have been given, without producing any other effect than a flow of saliva.

ERGOT, OR SPURRED RYE, *Secale Cornutum.*—Rye is subject to a disease, in low wet situations, or when a hot summer succeeds a rainy spring. The spurious substance called ergot, is found projecting from among the leaves of the spike or ear; it is a long crooked excrescence, resembling the spur of a cock, pointed at the extremity, of a dark brown colour externally, and white within. Some spikes are occupied wholly by spurs, while others have two or three only, interspersed with genuine seeds of rye.

This extraordinary substance possesses considerable medicinal properties. In lingering and laborious cases in child-bed, it acts as an invaluable medicine, speedily inducing forcible pains, and expediting delivery. It is given in the form of powder, in doses from five to fifteen grians, but it has sometimes been found more active in the form of decoction, prepared by gently boiling thirty grains of the powder in half a pint of water, of which one third may be taken every twenty minutes, until proper pains shall have commenced.

It is proper, however, to caution the domestic practitioner against employing this powerful medicine in cases of preternatural presentation, or even in every case of natural presentation. The powerful and continued efforts of the uterus, from the effects of the ergot, prevent the retreat of the child's head after being advanced, and the unceasing pressure, in some instances, occasioned the death of the child. Let this circumstance, therefore, have its due effect, and induce the utmost precaution in the administration of this powerful article

This medicine has also been successfully employed in cases of obstructed menses, or monthly evacuations. (*See Thatche 's Dispensatory.*)

EVERGREEN CASSINE. See *South Sea Tea.*

FEATHERFEW, OR FEVERFEW, *Matricaria Vulgaris.*—It is frequently cultivated in gardens. A handful of the leaves and tops infused in a quart of water, and given in doses of a tea-cupful three or four times a-day, is used by country people to promote the menses, to strengthen the stomach, to raise the spirits and promote perspiration in colds and fevers.

FENNEL, SWEET, *Fœniculum Dulce*—Grows kindly in our gardens. A tea-spoonful of the seeds, with a little sugar and spirits, is a common remedy among the country people in flatulent colic. To children afflicted with the above complaint, an infusion of the seeds sweetened is highly serviceable. The seeds yield an aromatic oil, which, in doses from two to twelve drops, removes flatulence, promotes expectoration, and is serviceable in coughs.

FERN FEMALE, OR BACKACH BRAKE—Grows near ponds, and in moist pastures, about twelve inches high. The leaves are single, winged, and about a hand's length; the root is about the size of a goose quill, of a brown colour, very sweet, and of a mucilaginous taste.

A quart of a strong decoction of the roots, and a pint of honey, formed into sirup, by gentle simmering, and given in doses of a table-spoonful every hour or two, is esteemed highly beneficial in all violent coughs. It is said that three parts of the roots of this plant, and one part of sumach root, boiled slowly in any kind of spirits, until it becomes slimy, and then applied warm to the spine, has frequently relieved the backach; hence the vulgar name backach brake. It has also been employed as a remedy for the rickets in children.

FERN, MALE, *Polypodium*—Called also sweet fern, male polypody. It grows in woods and stony places, flowering from June to October.

The root, when chewed, is somewhat mucilaginous and sweet, and afterwards astringent and bitter.

Sweet fern in powder, in doses from one to two tea-spoonfuls, or a decoction, a pint a day, followed on the fifth day with a dose of castor oil, or some purgative medicine, is esteemed a powerful medicine against worms, and particularly the tape worm.

FEVER BUSH, OR WILD ALLSPICE, *Dumus Febris*—Grows in meadows and swamps, and generally rises five or six feet high, leaves numerous and somewhat spear-shaped; the blossoms rather of a redish colour; the berries are blood red, and of a pleasant smell.

A handful of the twigs of this bush, infused in a quart of boiling water, and given in doses of a tea cupful every hour or two, is said to be extremely cooling and beneficial in fevers.

A handful or two of the berries infused in a quart of spirits, forms a pleasant bitter.

FEVER ROOT, OR DRAGON'S CLAW—Grows upon mountains and the sides of hills; about six or seven inches high; the leaves grow in a cluster from the top of the root; spear-shaped; blossoms yellow; the root black about the size of cloves, very tender, resembling the claws of the animal whose name it bears. When it is pulverized and exposed to the air it will liquify.

The root in the form of powder in doses of a tea spoonful or in the form of decoction, a handful to a quart of water, in doses of a tea cupful every hour, is esteemed an excellent medicine in bilious fever, pleurisy, colds, St. Anthony's Fire, and other febrile diseases.

FIG TREE, *Ficus*.—This tree ought more generally to be cultivated in our gardens, as it affords a fruit both grateful to the stomach, and easy of digestion, possessing also medicinal properties. A decoction of figs makes an excellent gargle for cleansing the throat and mouth; and the fruit, externally applied to tumours, or gum biles, is good to promote suppuration. When unripe, figs, as well as the whole tree, yield an acrid milky juice, which if taken, proves both emetic and purgative, but externally is a mild caustic—hence it is frequently used to remove warts, ring and tetter worms.

FLAG, BLUE, OR WATER FLAG, *Iris Pseudacorus*—Grows by the brink of rivers, in swamps and meadows, blossoming in July; flowers blue, variegated with white, yellow and purple.

The juice, in doses of a tea-spoonful, diluted with water, is said to be an active cathartic medicine, and to produce copious evacuations from the bowels, and to be useful in dropsy and dysentery. It produces similar effects in powder, from thirty to sixty grains, and has been employed as a vermifuge. In the form of decoction, used as a diet drink, it is greatly extolled in venereal cases.

The root of the yellow flag, mixed with the food of hogs that have been bitten by a mad dog, has been known to save, when without it others have run mad.

FLAG SWEET. See *Calimus.*

FLAXSEED, *Linum*—Possesses great medicinal virtues. An infusion, or tea, is the most suitable drink for patients labouring under violent colds, coughs, difficulty or burning in making water. The flaxseed sirup, which is prepared by adding a pint of honey to a quart of strong tea, and simmering it away slowly by a gentle fire for an hour, observing to take off the scum as it rises, I have found to be a most valuable medicine in diseases of the breast and lungs, in doses from a tea to a table spoonful every hour or two, or oftener when the cough is troublesome. The flaxseed bruised, also forms one of the best emollient poultices with which we are acquainted.

FLEA BANE, PHILADELPHIA, *Erigeron Philadelphicum*—Called by some, skerish. It is said, by professor Barton, to be a very common plant in many parts of the United States, and that in the form of infusion or decoction, it operates powerfully as a diuretic, and also as a sudorific. It is likewise reputed to be a good remedy for promoting the menstrual discharge.

In Virginia there is a plant called pisswort, which is esteemed a powerful medicine in cases of strangury or difficulty of urine.

FLOWER DE LUCE. See *Flag, Blue.*

FLUX ROOT. See *Pleurisy Root.*

FOX-GLOVE, *Digitalis Purpurea*—Has lately been cultivated in our gardens. It rises to the height of two or more feet, and its leaves are large, egg-shaped, notched like a saw, and covered with hairs. Blossoms of a beautiful purple colour, hanging downwards in a row along one side, which are compared to the fingers of a glove, and in the inside are elegantly mottled with spots like little eyes.

The fox-glove has been employed with advantage in those disorders where the frequency of the pulse requires to be abated. In the incipient stage of consumption, it has, by diminishing the circulation through the lungs, frequently succeeded in arresting the progress of the disease. It has also been advantageously employed in the second stage, but here it should be exhibited with the greatest precaution. The treatment of consumption with fox-glove, cannot be more satisfactorily shown, than in the following practical remarks of my learned friend, Dr. John Spence, of Dumfries, Virginia, communicated in that useful work the New-York Medical Repository:

"In the incipient stage of consumption where there is considerable vigour of constitution, particularly if attended with active hemorrhage from the lungs, I push the use of the digitalis cautiously, but freely; that is, I try to reduce the pulse under sixty strokes in a minute, and maintain this depression for two or three weeks, notwithstanding there be occasionally considerable and distressing nausea. At the same time I advise a milk and vegetable diet, with gentle exercise on horseback, or in a carriage, when the weather will admit, and the use of the swing-chair for an hour at a time, twice or thrice a day. When the pains about the chest are wandering, I also advise the repeated application of a blister, and other stimulating plasters, to the breast, and between the shoulders; but if the pain be fixed, I prefer the introduction of a seton, as near the part affected as possible. My patient is also directed to drink moderately of emollient teas, or tar water, to be warmly clothed, to avoid cold and wet feet, and sitting up late at night. All great exertions of the body, but particularly of the lungs, as singing, or speaking loud, must also be carefully avoided.

"In the second or more advanced stage of this disease, accompanied with a quick pulse and great general debility, the treatment is very different. The fox-glove must be so managed, as to lower the pulse, and moderate the fever, but never pushed to such an extent, as to excite nausea or sickness at the stomach. A little experience will soon enable a judicious and attentive practitioner to ascertain the dose adapted to his patient's constitution, and as soon as he has attained this knowledge, he must be persevering in the use of the medicine. At this period of the disease, the patient's strength must never be suffered to languish. He must be supported by nutricious diet. Agreeably to the present manners of society, two or three meals are taken in the course of the day; but this mode of eating is very improper with delicate constitutions, more food being generally eaten at such stated periods, than is necessary; thereby causing great heat, accelerating the pulse, and throwing the whole system into commotion. The diet should be nourishing, and of easy digestion, such as jellies, broths, eggs boiled soft, oysters, raw or moderately roasted; indeed, a bit of fowl, beef, mutton, or venison, dressed rare, may be taken in small quantities every two or three hours throughout the day. This deviation from the present fashion of eating is indispensable, ample nourishment being thereby thrown into the system without exciting irritation. At the same time I recommend solid food in this way, I forbid the use of spices, wine, or spirits. The same directions respecting topical applications and exercise, are equally applicable to this as the incipient stage, and particularly the exercise of swinging; and care must be taken that the swing-chair be so constructed, that the patient may be perfectly at ease, without being afflicted by fatigue or bodily exertion."

Many other respectable physicians bear testimony in favour of this medicine in consumptive cases. Dr. Beddoes of London, considers the fox-glove almost as infallible a remedy in consumption, as the Peruvian bark in intermittents. From its power of reducing the force of the circulation, it is esteemed likewise a valuable remedy in bleeding of the nose, spitting of blood, and excessive discharge of the menses, and also in palpitation of the heart from the passions of the mind or intemperance.

Dr. Rand, of Boston, has experienced the most decidedly good effects of this medicine in most of the preceding complaints. In one instance hæmoptoe, or spitting of blood, in a very athletic young man, where the discharge eluded the force of every other medicine, it reduced the pulse in eight hours, from one hundred to fifty pulsations in a minute, and stopped the hemorrhage. He has also given the medicine with complete success in cases of mental derangement.

Fox-glove possesses also diuretic powers and has long been employed in dropsy. It unquestionably acts powerfully as a diuretic, or in evacuating the water in dropsy, and will be found of the greatest utility in every species of this disease, but more especially the dropsy of the breast, where there exists an increased action in the system.

However, from the respectable authority of Dr. Withering, and the celebrated Dr. Darwin, we are assured it had been exhibited with the most happy effects, in cases of extreme debility, where the pulse was feeble, intermitting, and the countenance pale. It should not be given in such doses as to excite much sickness or purge, otherwise it will not produce its diuretic effect. The best rule for its administration, is to commence with the smaller doses, twice or thrice a-day, and gradually increase the quantity daily, until the medicine either acts on the kidneys, the stomach, or the bowels; and on the first appearance of any of these effects, it is to be suspended.

After evacuating the water, tonic or strengthening medicines should be employed. Dr. Currie, another physician of great eminence in England, has employed this medicine with signal advantage in inflammation of the brain, heart, and lungs, and found it also an excellent remedy in the inflammatory rheumatism. The leaves of this plant are the part in use, of which from one to three grains in powder, may be given to an adult twice or thrice a day, alone, or united with some aromatic, or the powder may be formed into pills with soap, or the crumbs of bread, or it may be given in the form of infusion, by infusing a drachm of the dried leaves in half a pint of boiling water, for four hours, adding to the strained liquor one ounce of any spiritous water; from one to two table spoonfuls to be given twice or thrice a day, as a medium dose for an adult. Another more convenient way of ascertaining the dose of fox-glove, is by making a saturated tincture of it in proof spirits, which has the twofold advantage of being invariable in its original strength, and of keeping a long time without losing any of its virtues. Put two of the leaves nicely dried, and coarsely powdered, into a half a pint of spirits; let it stand by the fire-side twenty-four hours or longer, frequently shaking the bottle, and thus making a saturated tincture of fox-glove, which must be poured from the sediment, or passed through filtering paper. From twenty to sixty drops of the tincture may be taken in a little mint-water or tea two or three times aday. This medicine has also been externally applied with good effects. An infusion of it is recommended as a good wash for painful cutaneous eruptions or ulcerations. An ointment prepared by simmering the leaves in lard or fresh butter, has been found successful in scrophulous ulcers and scald head.

FRENCH APPLE. See *Thorn Apple.*

FROSTWORT, *Systis Canadensis*—Grows in woods about two feet high, leaves small and numerous, of a whitish colour like frost; the stalk purple; flowers of a pale colour, producing a small pod with very small seed.

It is said, in cases of scrophula, or king's evil, an infusion of the leaves, a handful to a quart of boiling water, in doses of a tea cupful three times a day, and the leaves in the form of poultice, applied to the swelling twice a-day, has performed cures.

FUMITORY, *Fumaria Officinalis*—Grows in corn-fields, and by fences, and rises a foot high; leaves pale green, and the flowers of a reddish purple. The leaves in the form of infusion a handful to a quart of boiling water, and taken in doses of a tea cupful thrice a day, are esteemed a good medicine in scabby eruptions, and all cutaneous diseases, particularly if the eruptions are washed with the infusion.

GARGET. See *Poke Weed.*

GARLIC, COMMON, *Allium Sativum*—Is highly stimulating, and therefore useful to persons of cold phlegmatic, constitutions. It provokes the appetite, assists digestion, removes flatulence, promotes expectoration and urine, and hence has long been used in scurvy, asthma, and dropsy.

Where it cannot be taken in substance, the best forms are either in sirup or pills. Externally applied, it blisters the skin. A poultice or cataplasm of equal parts of bruised garlic and crumbs of bread, mixed with sharp vinegar, applied to the soles of the feet, in the low stage of acute disorders, or nervous fever, is good to raise the pulse, and relieve the head. Sydenham says it exceeds all other applications for occasioning a revulsion from the head, and that the efficacy of garlic thus applied every night, until slight inflammation is produced, is superior to Spanish flies. It is an excellent re mey in cases of croup, or violent sore throat. [*See Onions.*]

It will also be found a good application to the pubes in producing a discharge of urine, when its retention has arisen from want of due action of the bladder. When made into an ointment, it is said to discuss cold and indolent tumours, and has been esteemed for its efficacy in cutaneous eruptions. In deafness, a small clove of the root, wrapped in gause, cotton, or wool, moistened with the juice, and introduced into the ear, has frequently proved an efficacious remedy, if repeated twice or thrice aday.

GENTIAN, *Gentiana*—Grows on the sides of roads, and in waste pastures, two or three feet high. The stem is strong, smooth, and erect; the leaves, which rise from the lower part of the stem, are spear-shaped, large, ribbed, and rough: flowers yellow, in whorls, terminating in yellow bitter berries.

Its virtues are equal to the imported. It has long occupied the first place in all recipes for bitters, whether used to provoke the appetite, or give tone to the system. It may also be taken in the form of infusion, a small handful of the root to a quart of boiling water, in doses of a tea cupful three or four times aday.

In the form of a decoction it is used with decided advantage in pneumonia cases, where the fever is nervous, and it acts as a tonic and sudorific, a tincture of it is esteemed as a remedy in dyspepsia, given in doses of one fourth or half an ounce. It is said to increase the appetite, prevent the acidification of the food, and to enable the stomach to bear and digest articles of diet, which before produced oppression and dejection of spirits.

GILLENIA, COMMON, *Gillenia Trifoliata*—Grows in woods, in light soil; flowers in June and July; and has commonly a number of stems from the same root which are a foot or two in height, erect, slender, smooth, of a reddish tinge and considerably branched. The leaves are alternate, and slightly toothed; the flowers few in number and scattered; and the root branched and knotty. The root when boiled in water, imparts to it a beautiful deep red colour and an intensely bitter taste. This plant has long been known to practitioners as an emetic. Professor Bigelow adds his testimony of its possessing properties in a certain degree analogous to those of ipecacuanha. Dr. de la Motta, of Charleston, S. C. testifies to its efficacy, as an emetic both upon an empty stomach and a full one.

Twenty or twenty-five grains, divided into four equal parts, each taken every fifteen minutes, is the proper dose.

GINSENG, *Panax Quinquefolium*—Is thinly scattered throughout the mountainous regions of the northern, middle, and western states, between the 38th and 47th, degrees of north latitude. It inhabits rich, shady woods, the declivities of mountains, and the banks of torrents. The stem is smooth, round, and green, regularly divided at the top into three branches, with a flower stalk in the centre. It flowers in July, and has red berries. The root consists of one or more fleshy, oblong portions, of a whitish colour, transversely wrinkled.

This plant is precisely the same with the Asiatic, the roots of which are so highly valued in China. The Chinese consider the ginseng as possessing unequalled medicinal powers, and their physicians have written many volumes upon the qualities of the plant. It is made an ingredient in almost all remedies which they give to the nobility, its price being too expensive for the common people. The sick take it to recover health, and the healthy to make themselves stronger and more vigorous. They affirm that it removes all fatigue, either of body or mind, dissolves humours, cures pulmonary diseases, strengthens the stomach, increases the vital spirits, and prolongs life to old age. Its price at Pekin, according to travellers, has been eight or nine times its weight in silver, and even more.

The report of the high value of the ginseng in China led to an enquiry among Europeans, whether the plant was not to be found in parallel latitudes in the forests of America. Father Lafiteau, a Jesuit, after much search in Canada, found the plant in the year 1717. The French and the Anglo-Americans commenced the collection of the root, and large quantities were exported. The first shipments to China proved extremely profitable. In a short time, however, the supply overstocked the market, the Chinese began to think the American ginseng inferior to the Tartarian, and its value depreciated, so that it ceased to be an object of profitable commerce. Its demand has not materially risen at any subsequent period, though it is still occasionally exported. The Chinese most readily purchase the forked or branching roots; and those exporters have been most successful who have prepared their ginseng by clarifying it after the Chinese manner. They dip it in scalding water, and scour it with a brush. The roots are then prepared with the fumes of a species of millet, to give them a yellow colour. The millet is put in a vessel with a little water, and boiled over a gentle fire. The roots are placed over the vessel upon transverse pieces of wood, being first covered with a linen cloth or another vessel. When treated in this way, they assume, upon drying, a horny or semi-transparent appearance.

The roots may also be dried in the sun, or by the fire, and retain their qualities perfectly. In this case, however, they have not that yellow colour which the Chinese so much admire.

As far as ginseng has been tried in this country, and in Europe, its virtues do not appear, by any means, to justify the high estimate of it by the Chinese. That it is not a very active substance, is proved by the fact, that a whole root may be eaten without inconvenience. Its place in the Materia Medica is among demulcents.

It has an agreeable taste, consisting of a mixture of sweet and bitter, with some aromatic pungency. Dr. Fothergill tells us that "in tedious chronic coughs, incident to people in years, a decoction of it has been of service. It consists of a lubricating mucilage combined with some degree of aromatic warmth." Ginseng is principally used as a cordial; many persons chewing it or taking it steeped in wine or spirits, in doses of a wine glassful twice aday. As a masticatory, ginseng is innocent and refreshing. It forms an excellent substitute for tobacco. I have repeatedly prescribed it to those whose constitutions have been injured by the immoderate use of tobacco, and, in every case, have witnessed the most beneficial consequences from its use. It is necessary, however, that the saliva should be swallowed.

GOLDEN ROD, OR THREAD, See *Mouth Root.*

GOOSE GRASS, *Galium Aparine*—Called by some Poor Robin's plaintain, from its efficacy in curing the gravel.

Grows in hedges, low grounds, and near brooks to the height of five or six feet, climbing on the bushes near it. The upper side of the leaves is white, with sharp prickles; the flowers small, and divided into four segments; these change into a fruit rather large, composed of two berries slightly adhering together and covered with hooked prickles; containing two seeds.

The leaves in the form of decoction, a handful to a quart of water, are highly celebrated as a remedy in gravel complaints, and suppression of urine, in doses of a tea cupful every hour or two, until relieved. It has also been recommended in the cure of scurvy, spitting of blood, and epilepsy or fits.

GROUND HOLLY, *Pyrola Umbellata*—It is sometimes called Pippsissewa, which is its Indian appellation. It possesses, in an eminent degree, the same properties as Bear's Whortleberry, which see.

GROUND PINE, *Arthetica*—Grows plentifully in stony lands, about six inches high, sending forth many small branches, with small narrow greyish leaves, somewhat hairy; flowers of a pale colour, growing from the joint of the stalk, among the leaves, after which come small round husks.

A large handful of the leaves and flowers steeped in a pint of wine, and taken in doses of a wine glassful twice or thrice a day, is said to be beneficial in rheumatism and uterine obstructions.

GROUND PINK, *Silene Virginica*—Called also catch-fly. A decoction of the roots is said to have been found a very efficacious remedy for worms.

GUINEA PEPPER, See *Pepper, Red.*

HART'S TONGUE—Grows among rocks and shady places; the leaves being of a shining black colour, long, pointed, and tongue-shaped.

This herb, in the form of infusion, a handful to a quart of boiling water, in doses of a tea-cupful two or three times a-day, is said to be a good remedy in diarrhœa and dysentery; and in the form of ointment, prepared by simmering a handful of the leaves in half a pint or more of lard, is a good application to scalds and burns.

HEART'S EASE, OR HERB TRINITY, *Viola Tricolor.*—Grows generally in corn-fields, producing white and yellow blossoms, intermixed with purple, which flower from May to September.

A decoction of a handful of the fresh leaves, or half the quantity of the dried, in a pint of milk, used daily for some weeks, is said to be a certain remedy for that disorder in children, called milk scab, or that species of scald head which affects the faces of children.

HEART SNAKE ROOT—Flourishes in Carolina and Georgia, in rich and high lands, never exceeding the height of six inches. The root is of a very aromatic taste, and the smell somewhat resembling the sassafras. The leaf shaped like a heart, dark green, and very glossy on the upper surface. The juice of the root and leaf pounded together, in doses of a table-spoonful for an adult, is an active and safe emetic; and a decoction in as large quantities, and as frequent as the stomach will bear, is of excellent service in the jail, camp, and nervous fever.

HELEBORE, WHITE, *Veratrum Album*—Grows in wet meadows and swampy places. The stalk is thick, strong, hairy, upright, and usually rises from two to four feet. The leaves are large, oval, ribbed, plated, of a yellowish colour, and surround the stem at its base. The flowers are of a greenish colour, and appear from June to August, followed each by three flat pods, containing whitish triangular seed. The root is short, commonly near an inch thick, with numerous fibres hanging from it, of a brown colour externally; it has, when fresh, a nauseous bitter taste, burning the mouth and fauces; and snuffed up the nostrils in very small quantities, excites most violent sneezing.

Every part of this plant is extremely acrid and poisonous. By the hand of skill, it has been employed internally with beneficial effects in several obstinate diseases, as those of the melancholic and maniacal kind, and epilepsy, king's evil, herpetic, and other cutaneous affections. In those complaints, the bark of the root, collected in the spring, has been given in the form of powder, beginning with half a grain at a dose, and gradually increasing the quantity daily according to its effects.

The American species, says Dr. Thatcher, very probably possesses all the properties of the foreign officinal root. It is undoubtedly a plant of highly active powers, meriting a particular investigation as an article of our Materia Medica. In fact, a new interest has lately been excited both in Europe and the United States, relative to the properties of white helebore. It is even supposed to be the basis of the French specific remedy, called Eau Medicinale d'Husson, so highly famed for its almost infallible powers in the cure of the gout, as to command the enormous price of from one to two crowns a dose. This remedy was discovered about forty years ago by M. Husson, a French officer, who affirms it to be prepared from a plant whose virtues were before unknown in medicine; and it has long been celebrated in France, and other parts of the European continent.

The importance and popularity of the subject were incitements to various attempts for that purpose, and to the ingenuity of Mr. I. Moore, member of the royal college of surgeons, London, the public are indebted for a composition, which if not identically the same bears a strong resemblance to the Eau Medicinale, in smell, taste, and dose: and also in all its effects, as far as it has been tried in the cure of gout. The composition of Mr. Moore consists of wine of opium Sydenham, one part, wine of white helebore, three parts, made by infusing for ten days, eight ounces of the sliced root of that plant, in two and a half pints of white wine, and strained through paper. This compound, when exhibited in doses from one to two drachms, has, in a variety of instances, effected a speedy cure of gouty paroxysms. There are, indeed, well attested facts, where the most painful gouty affections have yielded to a single dose of about one drachm; and the instances of its failure have hitherto, it is believed, been more rare than can be said of any other remedy. The employment of the composition of Mr. Moore, has also, in the hands of respectable physicians, been extended to acute rheumatism, and to some comatose affections, with the most decided advantage; and a perseverance in similar trials is strongly recommended. Its operation may be promoted by some aromatic, or by peppermint, pennyroyal, or ginger tea. It in general occasions some nausea and vomiting, followed by bilious stools. Externally applied in the form of ointment or decoction, it cures the itch, and other cutaneous affections. An ointment is prepared by simmering the root slowly in hog's lard. The decoction is made by boiling two ounces or a handful of the root bruised, in a quart of water, to a pint and a half, and then strained. The addition of a few ounces of lavender, rose, or lemon water, may be made, if convenient. With this the parts affected should be washed twice or thrice a day.

HEMLOCK, *Conium Maculatum*—Grows to the height of six or seven feet in rich land, near ditches, and in moist shady places. It is an umbelliferous plant, with large leaves, of a dark green colour on the upper side, and a whitish green underneath; much resembling parsley, especially the leaves of the smaller sorts, whose poisonous quality is the most violent. The stalk is round, smooth, hollow, and marked with brown or red spots; the flowers are white; the seeds greenish; flat on one side, very convex, and marked with five furrows on the other. The root is long, yellowish without, white and fungous within, and somewhat resembling a carrot. It changes its form according to the seasons and the leaves have a rank smell resembling the urine of a cat, but do not much affect the taste.

This poisonous plant possesses great medicinal virtue when judiciously employed. It has been used with considerable advantage in painful cancerous ulcers, venereal ulcerations, cutaneous affections, gleets, painful discharges from the vagina, and in a variety of cases of scrophulous affections. It has also been of great efficacy in epilepsy, chronic rheumatism, and jaundice. Externally applied, it has been useful in discussing schirrhous tumours, particularly those of a scrophulous nature.

The proper method of administering hemlock, inwardly, is to begin with a grain or two of the powder of the leaves, or the inspissated juice, and gradually to increase the dose until the head is affected with slight giddiness, or it occasions some sickness, and trembling agitations of the body, or produces one or two evacuations the morning after the dose. One or more of these symptoms are the evidences of a full dose, and here continue until none of these effects are observed; and then, after a few days, increase the dose; for little advantage can be expected, but by a continuance of full doses.

The dried leaves are less liable to injury from keeping than the inspissated juice. The leaves should be collected in June, when the plant is in flower, and its peculiar smell strong. The drying of the leaves should be performed quickly before a fire, on tin plates. The proof of the drying having been well performed, is the powder's retaining the odour of the leaves, and the deepness and freshness of the colour. It should be kept in close vials, and secluded from the light.

HENBANE, BLACK, *Hyosciamus Niger*—Grows at the sides of fences, about old ruins, and on dung-hills, and with the dung is sometimes carried into gardens, where, from its similitude to parsnips, it is mistaken for them; and when eaten, produces stupor and apoplectic symptoms terminating in death. It rises from one to two feet in height; the stalks are thick, woody, irregularly branched, and covered with a hairy down, the leaves surrounding the stalk at their base, stand irregularly; they are large, soft, and downy, pointed at the ends, and very deeply indented at the edges; their colour is a greyish green, and they have a disagreeable smell; the flowers are large, egg-shaped, and of a dirty yellowish colour, with purple streaks. The root is long, tough, white, and when recently cut through smells like liquorice.

According to Dr. Stork, the juice of this poisonous plant inspissated, and exhibited in doses from one grain to twenty, every twenty-four hours, has relieved many from palpitation of the heart, a tendency to melancholy, coughs, and other spasmodic disorders and convulsions, and this after other means had failed.

HERB BENNET. See *Avens.*

HERB TRINITY. See *Heart's Ease.*

HOGBED, OR HOGWEED, *Ambrosia*—Grows near farm yards, and on stony soils, like moss, about three inches high. The leaves are of a deep green colour, small and curly. The hogs delight to make their bed on it, from whence it derives its name.

A handful of this plant infused in a quart of water, and given in doses of a tea-cupful three or four times a-day, is a popular remedy among women to promote the menses or courses.

HOLY THISTLE. See *Thistle Holy.*

HOODED WIDOW HERB, *Scutellaria Lateraflora*—Is found in abundance on the banks of rivers, and the borders of ponds, flowering in July and August. The stem is square, branched, and attains the height of from one to three feet. The leaves opposite, narrow pointed, on long foot stalks; the blossoms small, of a violet colour, intermixed with small leaves.

Dr. Thatcher has introduced this plant in his American Dispensatory on account of its recently reputed efficacy as an antidote to canine madness. It is directed to be given in the form of a strong infusion of the leaves every morning fasting, and to be continued for several weeks. For cattle, it may be mixed with their food or drink.

HOPS, *Humuli*—Are an agreeable strong bitter, principally used in making malt liquors. They also induce sleep; hence the popular remedy of a pillow of hops to procure sleep in the delirium of fever and insanity, which not unfrequently succeeds. They give out their virtues to spirits or water.

In the form of fomentation and poultice, hops serve as a most valuable application to ill-condition ulcers, or painful cancerous sores.

Mr. Stephen Hammock, assistant surgeon to the royal hospital at Plymouth, gives the following account of the benefit obtained from the external use of hops. I have seen (says Mr. H.) very good effects from hops in poultices and fomentations applied to ulcers of the worst kind, in more than sixty patients received into the hospital from ships of war. Some of the ulcers proceeded from scurvy, and some from other causes. But though all of them have been sordid, fœtid, and extensive, yet the fœter has soon been corrected by these applications, and the ulcers have ceased to spread.

A large handful of hops is to be well boiled with a quart of water, to which should be added meal or bran, forming a poultice, applied to the ulcer, without any intervening lint. But, previous to this application of the poultice, the ulcers are directed to be well fomented with the decoction. The pain proceeding from the ulcers is soon alleviated, and the ulcers soon cease to spread. They become clean, and in a state to be dressed with lint, or any soft ointment. [See *Duncan's Annals of Medicine*, also *Medical Repository.*]

Hops form the bases of beer and yeasts, of which the following are the most simple, and among the most approved.

Beer.—Take fifteen gallons of water, and boil one half of it, or as much as can conveniently be managed; put the part of the water thus boiled, while it is yet of its full heat, to the cold part, contained in a barrel or cask, and then add one gallon of molasses, commonly called treacle, stirring them well together; add a little yeast, if the vessel be new, but if it has been used for the same purpose, the yeast is unnecessary. Keep the bung-hole open, till the fermentation appears to be abated, and then close it up. The beer will in a day or two afterwards be fit to drink. A few handfuls of hops, boiled in the water, either with a little orange peel, or without, give a wholesome and pleasant bitter to this beer, and assist in keeping it from turning sour. If tops of the spruce-fir be added to the water which is boiled for making this beer, it is then called spruce beer.

Extemporaneous Small Beer.—To two quarts of common porter, add of molasses half a pint, of ginger two drachms, water just warm, four quarts; let the whole ferment in a warm place, then rack off.

Another.—Lemon peel one ounce, cream of tartar, four ounces, hops one ounce, molasses one quart, ginger one drachm, bruised cloves four in number, boiling water four gallons; ferment with yeast.

To make Yeast.—Boil a pint bowl full of hops in two quarts of water to one quart; put eight table-spoonfuls of flour into a pan, and strain the hop water boiling on it; when mixed, it should be thick batter, and when milk warm, stir in it a breakfast cup of good yeast; put it in three porter bottles, stopping them with paper; put them into a milk-pan near the fire, and as soon as the mixture rises to the top of the bottle, remove them to the cellar until it subsides, then cork the bottles, and set them on a cool cellar floor, or in an ice-house. In very warm weather, the corks ought to be taken out every day, to let out the carbonic acid air, and the bottles again stopped.

Another valuable recipe.--Boil twelve clean washed, middle sized potatoes, and at the same time, boil in another vessel, a handful of hops in a quart of water; peel and mash the potatoes in a mortar or bowl; pour part of the hop water, while hot, upon the potatoes, mix them well, and pass them through a sieve, then add the remainder of the hop water, and half a tea-cupful of honey, beat all well, and add a small portion of leaven to bring on the fermentation. Put the whole in a stone jug, and set by the fire, in the winter; all the utensils must be scalded every time they are used, and washed perfectly clean. One tea-cupful of the above potatoe yeast, will answer for two quarts of flour. In summer the yeast ought to be made every second day.

HOREHOUND, *Marrubeum Vulgare*—Grows among rubbish, flowering from July to September. The leaves have a very bitter taste.

An infusion or tea of the leaves sweetened, is a very common remedy for colds. A sirup prepared by simmering slowly for an hour, a pint of honey in a quart of a strong decoction of the plant, is, from my own experience, an excellent medicine in coughs, or any breast complaint, in doses of a small table-spoonful every two or three hours, or oftener, when the cough is very troublesome. In like manner a candy prepared by simmering slowly half a pint of the juice with a pound of sugar, will be found equally servicable.

In the southern states there is a plant, called wild horehound, growing to the height of one or two feet, of which a tea, prepared by adding one or two handfuls of the fresh leaves, or half the quantity of the dried, to a quart of water, in doses of a gill or more, every two or three hours, acts gently on the skin and bowels, and is used like the Peruvian bark as a tonic in the cure of ague, and bilious fever.

HORSE-RADISH, *Cochlearia Armoracea*—Grows on the sides of ditches and damp places, but is cultivated in our gardens for culinary and medicinal purposes. It has long been known as a most powerful antiscorbutic; and when taken freely, it stimulates the nervous system, promotes urine and perspiration, and is thereby usefully employed in palsy, dropsy, scurvy, and chronic rheumatism. The root should be cut into small pieces, without bruising, and swallowed in the dose of a table-spoonful, without chewing, once or twice a-day, or it may be steeped in wine, and taken in doses of a small wine-glassful.

Upon the authority of the celebrated Dr. Cullen, it is, in the form of sirup, excellent in hoarseness, or in the decline of violent colds and pleurisies. Whether externally or internally employed, horse-radish proves a stimulent; hence it has been found serviceable by chewing it in palsy of the tongue, and applied in paralytic complaints to affected parts. The root, scraped, and applied in the form of poultice, to the feet, until some inflammation is produced, in low stages of fever, attended with delirium, has also produced good effects.

It is said, the root steeped in vinegar, will remove freckles of the face; if so, it deserves to be tried in cases of ring or tetter worm.

HOUSELEEK, *Sempervivum*—Grows on the roofs of houses and old walls, flowering in July.

The juice of this plant, mixed with honey, is said to be of considerable service in the thrush of children. Stewed with cream, it is a great favourite with the country people for the cure of corns, fresh burns, stings of wasps, bees, and other external inflammations. An infusion of the leaves is also said to be cooling and laxative.

HYSSOP, *Hyssopus*—Is cultivated in our gardens. An infusion of the leaves, sweetened with honey, or in the form of sirup, is usesul in humoral asthma, coughs, and other disorders of the breast and lungs, accompanied with inflammatory symptoms.

ICE PLANT, *Mesembryanthemum*—Grows in woods to the height of six inches, and becomes white in September; the stalk and leaves are like frozen jelly, and when handled, dissolve as ice.

The root pulverised, in doses of a half or tea-spoonful in the morning, is said to be a good remedy for children troubled with fits; hence it is called by the country people, *Fit Root.* Adults may take it in much larger doses.

INDIAN HEMP—Grows in woods, and on the borders of meadows, three feet high; the stalk is bare for a foot, then spring many branches, leaves numerous, flowers whitish, similar to buckwheat, which terminate in seed pods resembling a cucumber.

The bark of the root in the form of powder, in doses from twenty to thirty grains, or half a tea-spoonful, will generally operate as an emetic and cathartic. In doses of five or six grains, or a wine-glassful of the infusion, every two hours, it promotes perspiration. It has been found beneficial in rheumatism, dropsies, and asthmatic complaints. A table-spoonful of the infusion, half a handful of the bark to a pint of boiling water, given occasionally to children in the whooping cough, throws off the phlegm, and prevents straining.

INDIAN PHYSIC, OR AMERICAN IPECACUANHA, *Spiræa Trifoleata*—Grows about two or three feet high, in low woods and meadows.

Professor Barton says, the root, which is the part made use of, is a safe and efficacious emetic.

The celebrated Col. Bird, of Virginia, was so enamoured of this plant, that he wrote a phamphlet on its virtues, which he found, from great and successful practice in his own very numerous family, to be at least equal if not superior to those of the imported ipecacuanha. In the dose of thirty to forty grains in powder, for an adult, it is one of the most safe and certain emetics. In broken doses of five or six grains, every two hours, it is equally valuable as a sudorific. It may also be given in infusion, a handful to a pint of boiling water, of which a small tea-cupful may be taken every fifteen or twenty minutes, until it promotes vomiting.

INDIAN TOBACCO. See *Emetic Weed.*

INDIAN TURNIP, *Arum Triphyllum*—Grows in meadows and swamps, six or eight inches high, purple stalks, leaves three in number, roundish, and berries of a bright scarlet colour.

It is a very acrid plant. An ointment prepared by simmering the fresh root in hog's lard, and one eighth part of wax, is said to be a good application in the scald head. From the authority of professor Barton, we learn that the recent root, boiled in milk, has been advantageously employed in cases of consumption. He even cites a very striking instance. It is also recommended in the asthma, and whooping cough, in the form of conserve, made of a pound of the peeled root pounded finely in a mortar, with three pounds of loaf sugar; dose, a tea-spoonful twice or thrice a-day.

INDIGO WEED, OR WILD INDIGO, *Sophora Tinctoria*—Grows in great abundance on the road sides, and in the woods, and is used by travellers in the middle states to drive away the flies.

A decoction of this plant in large doses, is said to operate powerfully on the stomach and bowels, but in smaller doses of a wine-glassful, proves a mild laxative. An infusion or tea, is said to be cooling and good in fevers; and in the form of fomentation and poultice, to arrest the progress of mortification, especially if a little of the infusion be taken internally at the same time. An ointment prepared by simmering the bark of the root in cream, fresh butter, or lard, has been recommended as a good application to sore nipples or ulcers of the breast.

IPECACUANHA, AMERICAN. See *Indian Physic.*

IVY. See *Calico Tree.*

JAMES' TOWN, OR JIMSON WEED. See *Thorn Apple.*

JERUSALEM OAK, OR WORM SEED, *Chenopodium Anthelmenticum*—Has long been employed to expel worms. One or two tea-spoonfuls of the seed with molasses or honey, is generally given to a child two or three years old, in the morning on an empty stomach, and the dose is sometimes repeated at bed-time. It ought to be continued for several days. When there is an aversion to using it in this form, the seed may be boiled in milk, and taken in doses of one or two wine-glassfuls, or the expressed juice of the plant sweetened, may be exhibited in doses of a table-spoonful. The oil, which is prepared from the seed, possesses the same virtue, and is found a more convenient form of giving the medicine.

JUNIPER, COMMON, *Juniperus Communis*—An evergreen shrub, growing on dry barren commons, and hilly ground.

A strong decoction, made of a handful of the tops and berries to a quart of boiling water, in doses of a tea-cupful three or four times a day, has long been employed in dropsy, scurvy, and gravel, or difficulty of urine. The oil of juniper possesses the same properties in a high degree, and imparts them to ardent spirits. The peculiar flavour, and well known diuretic effect of Holland gin, are owing to this oil.

Hoffman found it of a great use in debility of the stomach and intestines, particularly in old people. The stronger preparations have been found useful in uterine obstructions, and in paralytic affections of the urinary bladder.

LAMBKILL. See *Calico Tree.*

LAUREL. See *Calico Tree.*

LAVENDER THRIFT, *Statice Limonium*—Grows on the sea shore, on salt marshes, flowering from July to September. The stem is naked, branched, and about a foot high; the leaves long and pointed; the flowers blue, and growing on long spikes on the tops of the branches.

According to Dr. Hughes of Providence, and Dr. Baylies of Dighton, a decoction of the root has been tried with success in apthous state of fever, and ulcerous sore throat, as a most powerful antiseptic. In large doses it operates as an active emetic, and in smaller, as a strong expectorant.

LEMON TREE, *Citrus Medica*—Is now cultivated in the southern states, and holds the first place among the cooling and antiseptic vegetables, to correct the putrid tendency of animal food in summer.

The acid of lemons, from its antiseptic properties, has long been employed as a remedy in the scurvy. Dr. Cutbush says, from the commencement of our navy, it has been used on board the ships of war with very great success, in preventing, as well as curing, this disease. The fresh fruit is preferred.

Lemon, or lime juice, diluted with water, and the addition of a little sugar, forming lemonade, serves as one of the most grateful beverages in bilious and nervous fevers. When saturated with common table salt, it proves a valuable medicine in dysentery, putrid sore throat, and remittent fever. In diarrhœa and diabetes, where the aliments are apt to run off in their crude state, this mixture is said to be a most efficacious remedy. A table-spoonful of lemon juice, fifteen or twenty grains of salt of tartar, or salt of wormwood, with the addition of a little water, swallowed in a state of effervescence, is excellent to stop nausea, and allay febrile heat. The acid of lemons is a common remedy against narcotic vegetable poisons, such as opium.

Either of the following methods is recommended for preserving the juice of lemon or limes. Boil the juice after straining, and bottle it, or squeeze the fruit, put the juice and pulp into a bottle, cover the top with an inch of oil, cork and rosin the bottle.—The juice is supposed to feed on the pulp. Before using the juice, the pulp and oil must be carefully taken out. The dried peel of lemons is a grateful aromatic, and as a stomachic generally constitutes one of the ingredients of bitters.

LETTUCE, *Latuca Sativa*—From the fortunate discovery and perseverance of the celebrated Dr. Duncan, the inspissated juice of the common garden lettuce is found to be but little inferior in soporific power to opium. In those constitutions in which opium cannot be employed without producing very disagreeable consequences, we may with safety employ as a sedative, the lettuce opium or tincture. Many eminent physicians bear testimony of the good effects of this medicine in procuring sleep, in alleviating pain, and in allaying inordinate action, particularly a troublesome cough. And in no instance has it been found to produce nausea, costiveness or irritation of the skin, which generally follow the use of opium or laudanum.

The best method of obtaining the inspissated juice of lettuce in abundance is as follows: Let the ice-lettuce, which is considered best for this purpose, be planted in rows; and when the top of the stem is about a foot above the ground, cut off about an inch from the top of each plant. The milky juice immediately rises above the wounded surface. But it is better to cut off the tops of all the plants before you begin to collect. After having done this, begin to collect the milky juice by means of a wet spunge where the incision was first made, and as you go along cut off a thin cross slice from the stem of each plant, leaving fresh wounds. After going round the plants about five or six times in the way mentioned, they will cease to yield any more milky juice at that time. But this process may be repeated two or three times in a day. The milky juice collected in this way is to be expressed into a tea cup, or any similar vessel. It soon acquires a dark brown colour, like opium obtained from the poppy; has all its other sensible qualities; and hence it may justly be distinguished by the title of lettuce opium.

It may be administered in the form of pills, in doses from one to two grains. The tincture is prepared by adding one ounce of the extract to a pint of spirits, which may be given in doses of a tea spoonful.

Another mode of preparing the tincture is by steeping two or three ounces of the dried leaves and stalks in a pint of spirits, for eight or ten days, in a warm place, frequently shaking the vessel, and then let it be strained through paper.

LETTUCE, WILD, *Lactuca Virosa*—Grows about four feet high, about hedges and the borders of meadows. It has three different kinds of leaves; those proceeding from the root are slightly toothed; and those attached to the flower stalks are arrow shaped; pointed and minute; the flowers are yellow and small, the leaves are milky, and smell like opium.

An extract prepared from the expressed juice of the leaves, gathered when in flower, and given in doses of from five to ten grains, twice or thrice a-day, is said to be a powerful diuretic, and of great efficacy in the cure of dropsy.

LICHEN, OR LUNGWORT, *Lichen*—Is a thin shell or skin which grows on the bark of the white oak tree, resembling the lungs, from whence it is called lungwort.

It is said to possess the same qualities as the Iceland moss, or lichen, so celebrated in the cure of consumption.

An infusion, a handful to a quart of boiling water, used as a common drink, or a strong decoction formed into sirup, with honey or sugar, may be taken in doses of a wine glassful three or four times a-day. It is also said to be a useful medicine in the whooping cough.

LIFE ROOT—Grows on the borders of meadows about two feet high; leaves large and saw edged; flowers yellow, and the roots small and fibrous.

An infusion of this plant, a handful to a quart of boiling water, taken in doses of a tea cupful five or six times a-day, is said to be an excellent remedy for the gravel.

LOBELIA, OR BLUE CARDINAL FLOWERS, *Lobelia Syphilitica*—Grows abundantly in the middle and southern states in moist grounds, and near springs; has an erect stalk three or four feet high; blue flowers; a milky juice and a rank smell.

Professor Barton says this plant was purchased from the northern Indians by the late Sir Wm. Johnson, as a remedy in the venereal disease: hence its specific name *syphilitica*. He doubts, however, its power to cure the pox; though from its diuretic quality, it certainly has been found useful in gonorrhœa or clap. He states that many persons in the western country, from their ignorance of botany, have made use of a plant which they call *obelia*, in the venereal complaint. But from the specimen he has received, he believes the plant to be the seratula spicata or spiked sawwort. It is a powerful diuretic, and there is good reason to believe that it has been found useful, not only in venereal complaints, but also in cases of gravel. Thus ignorance sometimes leads to knowledge.

The lobelia is generally administered in the form of a decoction, a handful of the root and leaves boiled slowly in three pints of water to a quart, of which a gill or more may be taken three times a-day.

MADDER, WILD, *Rubia Tinctorum*—Is cultivated in Pennsylvania and South Carolina for dying a fine red colour, but also possesses great medicinal powers.

It has been highly recommended in visceral obstructions, particularly of the uterus, in coagulations of the blood induced either by falls or bruises, in dropsical complaints, and especially in the rickets. It may be given in powder from five to fifteen grains to children, and from half to a whole drachm three or four times a-day to adults. When taken internally, it possesses the remarkable quality of tinging the urine of a red colour, and produces similar effects on the bones of animals, when eaten with their food.

MAGNOLIA—Goes by several names, as beaver tree, swamp sassafras, elk bark, Indian bark. It is an agreeable aromatic tonic bitter medicine.

An infusion or decoction of the bark has been used in the ague and fever, and much celebrated among the western Indians as a remedy in rheumatism. I am informed from a respectable source that John Dickinson, Esq. author of the celebrated Pennsylvania Farmer's Letters, was completely cured of a violent attack of the chronic rheumatism by a strong decoction of the twigs of the magnolia.

The species *Magnolia Gradiflora*, evergreen laurel, sometimes called tulip tree, grows to the height of eighty feet near Savannah. The bark of the root of this tree is also used as a substitute for the Peruvian bark in intermittent fevers. The cones or seed-vessels of the magnolia, which is commonly called *cucumber tree*, has been advantageously used in Virginia in the form of tincture, in rheumatic complaints.

MAIDEN HAIR, *Asplenium Trichomanes*—Called also milk waste, spleenwort. Grows on old walls, rocks, and shady stony places, generally to the height of seven or eight inches; leaves very fine and soft, and spotted underneath; stalks of a dark purple colour; flowers from May to October. Its leaves have a mucilaginous sweetish taste without any peculiar odour.

An infusion, by pouring a quart of boiling water on a handful of the dry herb, sweetened with honey, and taken in quantity of a tea cupful every hour or two, or a spoonful in the form of sirup, is said to be good in tickling coughs, hoarseness, and disorders of the breast, proceeding from acrid humours in irregularities of the menses, and obstructions of the viscera..

MALE FERN, See *Fern Male*.

MALLOW, COMMON, *Malva Sylvestris*—Grows in hedges, foot paths, and among rubbish; flowering from June to August. The leaves possess a mucilaginous sourish taste.

A decoction of this plant is said to be useful in dysenteries and gravel complaints, though it is chiefly employed as an emollient poultice to produce suppuration.

MANDRAKE, OR MAY-APPLE, *Podophyllum Peltatum*—Grows on low grounds, two or three feet high, leaves generally three, broad at the base, and terminating in a sharp point; flowers yellow; the fruit resembling a lime, or small yellow apple, which is much admired by some.

The root is an excellent purgative, and may be taken in doses from ten to thirty grains in substance, or double the quantity infused in a gill of water. Dr. Little, of Pennsylvania, esteems it preferable to jalap. The honourable Paul Hammilton, who often used it, directs equal parts of the juice and molasses to be mixed, and a table spoonful taken every hour or two until it operates.

The best time of gathering the mandrake, for medicinal purposes, is in autumn, when the leaves have turned yellow, and are about falling off. The Indians dry it in the shade, and powder it for use.

MARSH TREFOIL, OR BUCK BEAN, *Menyanthes Trifoliata*—Is a native of Europe and of America. Spongy and boggy soils which are inundated at certain seasons of the year, and are never wholly destitute of water, are the favourite situations of this plant. The root penetrates horizontally into the bog earth to a great distance, and is regularly intersected with joints at the distance of about half an inch from each other. The stalks are long, and from each of them proceed three leaves. Flowers white, tinged with red. The root is intensely bitter, and has long held a place in the European Materia Medica, as a powerful tonic. When given in small doses, of about ten grains it imparts vigour to the stomach, and strengthens digestion. We are told by authors that it has been employed with advantage in intermittent and remittent fevers. Boerhœve, in his own case of gout, was relieved by drinking the juice of the plant mixed with whey. Other physicians have found it useful in keeping off the paroxysms of that complaint. Taken by infusion it also has good effects in some cutaneous diseases of the herpatic or seemingly cancerous kind.

We may regard this plant as one of our numerous vegetable bitters, which are fully equal in strength to imported articles of their class.

MARSH MALLOW, *Althæa Officinalis*—Grows in marshes and wet places. The leaves have a soft woolly surface, feeling like velvet. The flowers are of a white pale flesh colour, and appear in August.

Every part of the marsh mallow, and especially the root, when boiled, yields a copious mucilage, on account of which it is employed in emollient cataplasms or poultices, for softening and maturing hard tumours. It is likewise of eminent service in the form of infusion, in asthma, hoarseness, dysentery and gravel.

MARSH ROSEMARY, See *Lavender Thrift.*

MASTERWORT, *Imperatoria*—Grows in meadows and rich soils, two feet high; leaves, three together, saw-edged, and spear-shaped; flowers in June.

The root of this plant is a warm and grateful medicine in flatulency, weakness of the stomach and bowels, and dropsical affections. It may be taken in the form of powder, decoction, or tincture. One drachm or a tea spoonful of the powder in a glass of wine or spirits, and taken an hour before the fit, has frequently prevented the ague. The decoction or infusion is made of one handful in a quart of boiling water, and the dose a tea cupful three times a-day.

MAY APPLE, See *Mandrake.*

MAY WEED, OR WILD CAMOMILE, *Cotula Fœtida*—Grows about two feet high, in pastures near fences; the flowers yellow, resembling camomile flowers, and are frequently used as a substitute for them.

MEZEREON, *Daphne Mezereum*—Called also spurge laurel, dwarf bay. Grows plentifully in woods and shady places near the Ohio, and flowers in the month of February or March.—The fruit is a berry, in which is found a single seed. The leaves are spear-shaped, and the flowers grow of a beautiful red or rose colour.

The bark of the root of this plant is the part used in medicine, and has an extremely acrid burning taste in the mouth and fauces.

Dr. Withering asserts that a patient who lived under extreme difficulty of swallowing for three years, was effectually cured in two months, by chewing the root as often as she could support its irritating effects. The fresh root scraped, and applied to the surface of the skin, affords an efficacious blister—when taken internally, it determines to the surface, and has been found greatly serviceable in rheumatism and obstinate cutaneous diseases. Its principal use, however, is in the venereal disease, in the last stage, or when mercury has failed. It is particularly efficacious in relieving nocturnal pains, and removing venereal nodes. One gill to a half pint of the decoction, made of two drachms, or a handful of the bark, with an equal quantity of liquorice root, boiled in three pints of water to a quart may be taken three or four times a-day.

MILK, OR SILK WEED, *Vincetoxicum*—Grows by the road sides, and on sandy ground, about three feet high; the stalk square; leaves oval and milky; flowers yellow, which terminate in a pod resembling a cucumber, filled with down, which when ripe, is blown away.

A handful of the root boiled slowly in a quart of water for half an hour, and given in doses of a gill or more three or four times a-day, is reputed to be an effectual remedy in the cure of dropsy, and serviceable in catarrhs, scrophulous and rheumatic disorders, and gravel complaints.

MILKWORT, COMMON, *Polygala Vulgaris*—Thrives in dry pastures, and flowers in June and July. Its roots possess an extremely bitter taste, together with all the virtues of the American rattle snake-root.

A table spoonful of a strong decoction of the root, two handfuls boiled slowly in three pints of water, to a quart, and taken every hour or two, promotes perspiration as well as expectoration, and has therefore been used with advantage in colds, pleurisies, and other disorders of the breast.

MILTWASTE. See *Maiden Hair*.

MINT. See *Peppermint*.

MISLETO OF THE OAK, *Viscum*—Is to be found on several kinds of trees. That which grows upon the oak is said to have cured epilepsy or fits. It is directed that the misleto be separated from the oak, about the last of November, gradually dried, and when pulverized, confined in a bottle well corked; to be given in doses of a tea spoonful three or four times a-day gradually increasing the dose according to its effects.

MOORWORT, BROADLEAVED, *Andromeda Mariana*—Called wicke at the southward. A strong decoction of this plant is extremely useful as a wash in that disagreeable ulceration of the feet, which is called toe-itch, and ground itch, a very common complaint among the negroes and lower class of people in South Carolina and Georgia.

MOTHERWORT, *Leonurus Cardiaca*—Grows in waste places, and flowers in July and August. The flowers are in thorny whorls, purplish within, and white on the outside; the leaves are opposite, two to each whorl; they have a strong disagreeable odour, and bitter taste.

An infusion of this plant is a common domestic medicine in fainting, and disorders of the stomach. It is said to be peculiarly adapted to some constitutions affected with nervous and hysterical agitations; and that if taken at bed-time, procures refreshing sleep, when opium and laudanum had failed.

MOUNTAIN TEA, OR DEERBERRY, *Gaultheria Procumbens*.—It spreads very extensively over the more barren mountainous parts of the United States.

A strong infusion of this plant, a large handful to a quart of boiling water, in doses of a tea-cupful three or four times a-day, is esteemed useful in asthma, and for promoting the menstrual discharge.

MOUTH ROOT, OR GOLDEN THREAD, *Nigella*—Is found in swamps; the stems erect and naked; the leaves grow by threes at the termination of the stems; the white solitary blossoms appear in May; the roots are thread-shaped, and of a bright yellow colour.

This plant has been supposed to be efficacious, as a local application, in ulcerations of the mouth. Its reputation in this case is, however, wholly unmerited, since it possesses no astringent or stimulating quality, by which it can act on the ulcerated spots.

As a pure tonic bitter, capable of strengthening the viscera and promoting digestion, it is entitled to rank with most articles of that kind now in use.

MUGWORT, OR COMMON WORMWOOD, *Artemisia Absinthium*—Grows two or three feet high, on road sides and among rubbish; leaves deeply divided, pointed; on the upper side of a deep green, and on the under, soft or downy; flowers small and purplish.

An infusion, a handful of the tops to a quart of boiling water, in doses of a tea cupful, or a tea spoonful of the powdered leaves three or four times a-day, is an admirable stomachic in weakness of the stomach, lowness of spirits, and hysterical affections. It is also said to be a useful medicine in difficult menstruation, in intermittents, jaundice, and dropsical affections. Externally it is applied in the form of fomentation and poultice to resist putrefaction and relieve the pains of bruises, as well as prevent the swelling and discoloration of the part.

MULBERRY TREE, *Morus, Nigra et Alba*—Its fruit hath the common quality of all other sweet fruits, quenching thirst, abating heat, and proving laxative in its effects.

A sirup made of the juice of the fruit, serves as an excellent gargle for mitigating inflammations of the throat and ulcers of the mouth.

The bark of the root of the black mulberry tree, in doses of thirty grains, or half a tea spoonful of the powder, or double the quantity infused in a gill or half a pint of boiling water, or equal parts of a strong decoction and molasses, formed into a sirup, in doses of a wine glassful, is an excellent purgative, and has been used with success as a vermifuge, particularly for the tapeworm.

The fruit of the common mulberry tree, when properly fermented and prepared, yields a pleasant vinous liquor, known under the name of mulberry wine. Considerable quantities of these berries are likewise consumed in the cider countries, where they are mixed with the apples, in making a delicious beverage called mulberry cider. For this purpose, the ripest and blackest mulberries are selected, and the expressed juice is added to the cider, in such a proportion as to impart a perceptible flavour. The liquor thus acquires a very pleasant taste, as well as a deep red colour similar to that of the finest port wine, both of which continue undiminished by age.

MULLEIN, *Verbascum*—The leaves, a handful to a quart of milk, is a common remedy in bowel complaints.

In the form of fomentation or poultice, it is employed to relieve the piles, and other painful swellings; and in a dry and pulverized state, to destroy fungous or proud flesh.

MUSTARD, BLACK AND WHITE, *Sinapis, Nigra et Alba*—Mustard used with our food, provokes the appetite, assists digestion, and promotes the fluid secretions, and is especially adapted to persons of weak stomachs, or where much acid prevails, as it acts upon the system generally without producing much heat.

A table spoonful of prepared mustard in a pint of warm water, on an empty stomach, operates as an emetic in nervous disorders. A table spoonful of the unbruised seed taken twice or thrice a-day, proves a gentle laxative, increases the urinary discharges, and is useful in chronic rheumatism, asthma, palsy, and dropsy. In obstinate intermittents, or ague and fever, or with persons who find the Peruvian bark oppressive at the stomach, a tea spoonful of the whole seeds, or the flour of mustard, united with the bark or any of its substitutes, will very frequently succeed in the cure, when a pound of bark alone would not produce the desired effect. In languid constitutions, or low stages of fevers, a gill of the seeds mixed with a small handful of horse radish, and infused in a quart of wine, in doses of a wine glassful occasionally, is a most cordial stimulant.

Another excellent form in which mustard may be taken, is that of whey. It is prepared by boiling two or three table spoonfuls of the seeds bruised, in half a pint of milk, and as much water, till the curd be perfectly separated, to which a little sugar may be added, and of this drink, a tea cupful may be taken three or four times a-day, in nervous fevers.

The powder of the seeds, mixed with the crumbs of bread or flour, and formed into a poultice with sharp vinegar, is an excellent application to the parts affected with rheumatism, and to the soles of the feet, and palms of the hands, in fevers, where there is a languid circulation, or cold extremities, or in cases of delirium.

NETTLE, STINGING, *Urtica*—The expressed juice of a wine glassful, or a decoction, one handful to a quart of boiling water, in doses of a tea cupful three or four times a-day, is said to be useful in jaundice, asthma, consumption and gravel complaints. It is also said that the flower and seeds, in doses of a drachm thrice a-day, may be substituted for the Peruvian bark in ague and fever. Externally it has been employed in restoring excitements to paralytic limbs and other cases of torpor and lethargy. It may be applied by stinging the part with the nettles; or the fresh leaves may be applied to the arms or legs.

NIGHTSHADE, AMERICAN, See *Pokeweed.*

NIGHTSHADE, DEADLY, *Atropa Belladonna*—Grows two or three feet high in hedges, among rubbish, and uncultivated places; flowers dusky brown on the outside, and a dull purple within, appearing single among the leaves in June or July; the berries round, green, changing to red, and when ripe, of a shining black. The whole of this plant is poisonous, and children allured by its beautiful berries, have too often experienced their fatal effects.

Like all other strong poisons in the hands of skill it performs wonderful cures in palsy, epilepsy, melancholy, jaundice, dropsy and cancer. I have, says the great professor Cullen, had a cancer of the lip entirely cured by it. A scirrhosity in a woman's breast, of such a kind as frequently proceed to cancer, I have found entirely discussed by the use of it. In the employment of this dangerous medicine, it is necessary to begin with very small doses.

Half a grain of the powdered leaves or root, or two table spoonfuls of the infusion, prepared by infusing twenty grains in half a pint of boiling water, and strained after cooling, is a sufficient dose for adults to commence with. The dose is to be gradually increased, and repeated daily; but as soon as any dangerous symptoms occur, its use ought to be suspended for some days, and afterwards resumed in smaller doses. Externally the powdered leaves are applied to mitigate the pain in cancerous and other ill-conditioned ulcers, and the leaves in the form of poultice, to discuss scirrhous and cancerous tumours.

The garden nightshade, growing also on dung-hills, with white flowers, odour of musk, and the berries, when ripe, of a shining black, possesses virtues similar to those of the deadly nightshade.

From one to three grains of dried leaves infused in boiling water, and taken at bed time, will generally induce a copious perspiration, increase the discharge of urine, and operate as a mild laxative on the following day. If after increasing the dose some visible effect is not produced, its further use will not avail much. The dose is to be repeated every night, or every other night. In the form of poultice it hath abated the inflammation of the eyes, painful swellings, and inflammation of the venereal kind, and scrophulous and cancerous tumours.

The woody nightshade, called also *bitter sweet*, because it is first sweet, and then bitter, grows on the sides of ditches, and in moist hedges, climbing upon the bushes with winding, woody, but brittle stalks. The flowers are in clusters of a blue purple colour, appearing in June or July, and always turning against the sun.—The berries are red.

This species is not so deleterious as the above two, and it acts more uniformly. Its sensible operation as a medicine, is also by sweat, urine and stool, and in the form of infusion, is said to be eminently serviceable in acute rheumatism. It has also been found efficacious in jaundice, scurvy, obstruction of the menses, and in obstinate cutaneous disorders. An infusion, prepared by adding a pint of boiling water to an ounce or half a handful of the twigs or stalks, either in a fresh or dried state, of which a tea-cupful or more may be taken morning and evening. Another form is made by steeping four ounces of the twigs in a pint of wine. The dose a wine glassful. In the form of poultice or cataplasm, it is also said to be a powerful discutient of hard tumours. For this purpose boil two or three handfuls of the leaves in wine or vinegar, to which may be added a little flaxseed, and this to be applied warm to indurated or hard tumours. The application of the juice and leaves to cancerous sores, in some instances, has performed a cure.

OAK, *Quercus.*—The bark of the oak possesses, in a considerable degree, astringent, tonic, and antiseptic properties. Hence we can never be at a loss for a remedy in those diseases in which the Peruvian bark has been recommended. In intermittents and low stages of fever, in the advanced stage of dysentery, diarrhœa, indigestion, and other diseases of weakness, or loss of tone in the system, I have myself employed internally the black and red oak bark with equal effects, though in rather larger doses than the Peruvian bark. Many cases have come under my knowledge in practice, of persons, especially children, reduced to mere skeletons, by protracted disease, of bilious, nervous fever, and bowel complaints, whose stomachs would not retain medicine, being most wonderfully restored to the blessing of health by bathing in a strong decoction of oak bark not more than milk warm, twice a-day.

In the year 1809, I was requested by my brother, Dr. Thomas Ewell, who had the superintendance of the Marine Hospital in Washington, to visit some of his patients in the confluent small pox, which had proved fatal in several instances.

The first case presented to my view was that of a poor sailor, in the last stage of this dreadful disease, and so far gone that it was thought utterly useless to prescribe for him, his coffin being actually ordered. Reflecting, however, on the virtues of the oak bark, I did not myself entirely despair of his case; and instead of passing him by, I ordered a bath of a strong decoction of oak bark to be prepared with all possible despatch, setting at the same time some of the soldiers to boil the water, while others hastened to the woods for the bark. When we came to immerse him in it, we found his whole body such a mass of corruption, from the top of his head to the soles of his feet, so filled with vermin, that there was no other way to bathe him but in a sheet. I directed him to be supplied liberally with milk toddy, and to repeat the bath every two or three hours. By persevering in this treatment for two or three weeks, gradually diminishing the toddy and oak bath, as his strength increased, to the astonishment of all the spectators, he was miraculously snatched from the jaws of death.

When his sight was restored, he was much surprised to see that the astringent waters of the bath had made him look, as he said, "*as black as a negro.*" I am happy to add, that of several others in the hospital, who were treated in a similar mode, not one died.

In further proof of the tonic and antiseptic virtue of the oak bark, I beg leave to cite the following case from professor Barton.

In a case of gangrene of the foot, says this learned professor, from the puncture of a nail, which came under my notice in the course of last summer, I gave to the patient very large quantities of the decoction of oak bark, at the same time that the affected part was constantly kept wet with the same decoction, or with a poultice made of bread and milk and the bark. I cannot but ascribe the recovery of my patient to the use of these means, and I am emboldened to recommend the use of this cheap remedy, as one highly worth attention in similar cases.

OAK POISON. See *Poison Oak.*

ONIONS, *Allium Cepa*—Possess similar virtues with the garlic, only in a less degree. The disagreeable smell which they impart to the breath may be effectually obviated by eating a few leaves of parsley immediately after the onions.

Onions are justly reputed an efficacious remedy in suppression of urine, in dropsies, and in abscess of the liver. The following exemplification of the virtue of onions in liver complaints, deserves the attention of the reader.

Captain B. Burch, of the District of Columbia, was afflicted with an abscess of the liver, deemed incurable by his physicians, and seeing some onions in the room, expressed a wish to eat one.

Thinking his case desperate and no longer a matter of any consequence what he ate, his wife immediately gratified his appetite. After eating one or two onions he found himself much better, which induced him further to indulge his appetite. He subsisted for several weeks entirely on onions, with only the addition of a little salt and bread; and from using this diet he was restored to perfect health, and is now a very hearty man in his 53d year. This, with innumerable instances of a similar sort, ought to convince the young practitioner, that in the cure of this disease nature ought always to be consulted, as she seldom or never errs.

Upon the high authority of our virtuous and able statesman, the honourable William H. Crawford, onions externally applied is an invaluable remedy in violent sore throats. This worthy patriot informed me, that one of his children being violently attacked with the croup, at his mansion in Georgia, a physician was sent for; but before he arrived, the disease became so alarming as to threaten the child with immediate death, if something for its relief was not speedily done. Having heard that an ointment of garlic had been employed with beneficial effects in sore throats, he instantly had some onions beaten, not having any garlic at hand, to which was added a small portion of hog's lard; and with this mixture, the neck, breast, and back of the child was well rubbed, which, in the short space of one hour, relieved all the distressing symptoms. Another case of croup, cured by this application, came under the notice of Mr. Crawford last fall, as he was travelling from Georgia to the seat of government. A little girl, daughter of the gentleman at whose house he tarried one night, was seized with this alarming malady; and on his recommending the above remedy, it was employed with the same happy effects.

He also stated to me, that, while in Paris, he was afflicted with a violent sore throat, which did not yield to the usual remedies; he directed some onions to be beaten, and had them applied to the soles of his feet and legs, over which his stockings were drawn. The happy result was, that he had a good night's rest, and in the morning found his throat entirely cured. He communicated the cure wrought on himself to a French lady who was greatly distressed with a sore throat, which induced her to make the experiment, and the fortunate result was very remarkable.

ORANGE TREE, *Citrus Aurantium*—Is now cultivated in the southern states, and deservedly esteemed for its grateful acid juice, which, by quenching thirst, and diminishing heat, is of considerable use in febrile disorders. From its virtues to resist putrescency, it has always and most deservedly held the first place on the list of anti-scorbutics.

The following is a recipe for making orange wine:—Take the expressed juice of forty sour oranges, five gallons of water, and fifteen pounds of sugar; boil the water and sugar for twenty minutes, skim constantly, and when cooled to a proper heat for fermentation, add the juice and outer rinds of the fruit, rasped or sheered off, putting all in a proper keg; leave it open for two or three days and then bung it close for six months.

PAPAU. See *Custard apple*.

PAPOOSE ROOT. See *Cohush*.

PARSLEY-LEAVED YELLOW ROOT, *Zanthoriza Apiifolia*—Is a native of the southern states. The stems reach the height of three feet, and are somewhat thicker than the barrel of a goose quill. The root is from three to twelve inches long, and about the diameter of a man's little finger, sending off numerous scions, sometimes two feet in length, by which means it spreads considerably. The flowers appear before the leaves, very early in the spring.

Both the stem and the root are of a bright yellow colour, and possess a strong and bitter taste. In medicinal virtues, it is nearly allied to the celebrated colombo root. The powdered stem and root, in the dose of two scruples, is highly recommended in all cases requiring bitter and tonic medicines.*

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* The above is the character of this plant, as given by my excellent friend, the late professor Woodhouse. Friendship is often partial; but eulogy, to be *just*, must employ bright colours to paint the character of such a man as Dr. Woodhouse. With that rare benevolence which imparts its noblest ardour to friendship, he combined a genius which threw a solar radiance over the dark abyss of chemical science, besides illuminating other walks of useful knowledge.

According to professor Barton, we have a very common plant in various parts of the United States, particularly in the rich soil adjacent to the Ohio and its branches, in the western parts of Virginia, Pennsylvania, and Kentucky, which is commonly called Yellow Root. He describes the root of this plant as being a very powerful bitter, perhaps not less so than the preceding, and very popular as a tonic medicine. The usual forms of administering it are powder, tincture, and infusion. This latter has been employed as a wash in inflammation of the eyes. It is supposed this is the plant which some of the Indians make use of to cure cancers.

PARSLEY, WILD, *Petrosellinum*—Grows in meadows, and among rocks near the sea; stems firm, near six feet high; long, thick root, strong smell, acrid taste; flowers in July, and kidney-shaped seed, which alone are used in medicine, as a powerful diuretic.

A small handful of the seed, boiled in a quart of water and sweetened with honey, in doses of a tea cupful every hour or two, is celebrated as a remedy in suppression of urine, or gravel complaints.

PEACH TREE, *Amygdalus Persica*—Both the flowers and leaves are excellent cathartics, and ought to be preserved by every family. A tea spoonful of a strong infusion, sweetened, and taken every hour or two, will operate mildly on the bowels, without griping as senna does. Of the sirup, prepared by boiling slowly the juice of the leaves, with nearly an equal quantity of molasses, honey, or sugar, a table spoonful to children, and a wine glassful to adults, will also prove a mild laxative medicine. I have myself witnessed its good effects in St. Anthony's Fire and measels, and have no doubt of its utility in other diseases requiring gentle laxatives.

To darken the gloom of so awful a dispensation, it pleased the great FATHER of LIGHTS to take into his presence another star of equal lustre with Dr. Woodhouse. I mean that refulgent genius, Dr. Shaw, late Professor of Chemistry in the University of Maryland. The friends of an art so important as Chemistry, will have cause to mourn the early extinction of those bright luminaries.

Two of my most intimate friends, on a visit to one of their cotton plantations just settled in the interior part of Georgia, and where there was neither medicine nor physician, were taken dangerously ill of the bilious fever. A good neighbour hearing they were ill, went to see them, and prescribed what he called "*an excellent physic*," which was simply a strong infusion of peach leaves, to be taken in doses from a gill to a half pint every two or three hours. It operated on the stomach, bowels and skin; and by persevering in the use of it for a few days, they were happily restored to health.

A decoction, prepared by boiling a handful of the dried leaves in a quart of water to a pint and a half, and taken in doses of a tea cupful every two or three hours, is reputed, upon respectable authority, to have proved an effectual remedy in many cases of affections of the kidneys or gravel complaints, as also in cases of voiding blood by urine, which had resisted the usual remedies.

PENNYROYAL, *Mentha Pulegium*—An infusion, a handful to a quart of boiling water, a tea cupful the dose three times a day, has long been esteemed in hysteric complaints and obstructions of the menses. Dr. Withering says, that the expressed juice of pennyroyal, with a little sugar or honey, a tea cupful every two or three hours, is a useful medicine in the whooping cough.

PEPPERMINT, *Mentha Piperita*—Is an excellent stomachic in flatulent colics, languors, hysteric cases and vomiting. The usual modes of administering it, are infusion, the distilled water, and the essential oil. This last, united with rectified spirits of wine, forms the essence of peppermint, so highly esteemed.

In nausea, cholera morbus, obstinate vomiting, and griping, peppermint, infused in spirits, and applied as hot as can be endured to the stomach and bowels, will be found a most valuable remedy.

A lady of Alexandria was seized with a violent fit of the colic, bringing on a weakness and irritability of the stomach, with nausea and vomiting incessantly. Two eminent physicians sent for could prescribe nothing that did any service. Dr. Craik being called in, immediately ordered a large cataplasm of stewed mint in spirits, to be applied as warm as it could be borne, to the pit of the stomach and abdomen. It operated like a charm. The distressing nausea and vomiting left her, the aperient medicines were then retained, and the obstinate constipated state of the bowels was speedily removed.*

PEPPER, RED OR CAYENNE, *Capsicum Annum*—It is cultivated in our gardens; it is a powerful stimulant, and has been found beneficial in chronic rheumatism.—Those who are subject to flatulence will find benefit in using it with vegetables and soup. In cases of violent pain or cramp in the stomach, no medicine is superior to a strong infusion of red pepper, one or two pods to half a pint of spirits, in dose from a half to a wine glassful.—It is also useful, both as a medicine and gargle, in putrid sore throat, when infused in water. Steeped in spirits and applied warm to the extremities in chronic rheumatism, or low stages of nervous fever, when the circulation is languid, it has produced the most happy effects.

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* To heighten my satisfaction in this cure, it was wrought by a man, of whom I can never think without feeling the most tender sentiments of gratitude; I mean my uncle, Dr. James Craik, with whom I was then a student in Alexandria.

From the double motive of *pleasure* to myself and profit to others, I beg to sketch a short outline to Dr. Craik.

Habits of temperance, early adopted and steadily adhered to, imparted to his constitution, though naturally delicate, a degree of vigour and vivacity that carried him through life very pleasurably, till his eightieth year. After he retired from practice, he continued daily to take considerable exercise; and such was his activity, that, but a short time before his death, he walked from his country seat to Alexandria, a distance of eight miles!

The virtues which adorn the husband, the parent, the friend and the master, have seldom been sent to shine with more durable lustre than in Dr. Craik.

In reward of his virtues, Heaven was pleased to distinguish him with uncommon favours. For upwards of forty years he was honoured in an extraordinary degree, with the friendship of the great Washington, being all that time his companion and physician. This, however, was nothing compared to the happiness he enjoyed in marriage with a lady, who, for all the charms "of a mind, illumined face, and all the graces of *truth*, *goodness*, and harmony of love," never had her superior among the fairest daughters of Eve.

"So like an angel did she spend her days,
So like a blessed saint's, were all her ways;
So bland, so gentle, all her actions were,
One would have thought her an *immortal here*."

After more than fifty years of the happiest life, Dr. Craik was removed to those scenes where bliss immortal reigns. But their separation was short.

He first deceased, she for a few months tried
To live without him—lik'd it not, and died.—*Heath.*

PINK ROOT, CAROLINA, *Spigelia Marilandica*—Grows abundantly in the southern states, and is deservedly esteemed a *vermifuge*, or destroyer of worms. An infusion, a handful to a quart of boiling water, and one or two tea cupfuls night and morning, is the usual form and dose. With the addition of milk and sugar, children will take it almost as readily as their tea. It sometimes occasions disagreeable affections of the eyes; when this occurs, suspend the use of the medicine until these symptoms disappear, and then select from another parcel, or make tea of the tops only, as it is supposed the deleterious effects are in consequence of some other root being attached to it.

Pinkroot is also considered a valuable medicine in fevers, as is verified daily, when given to children in a febrile state for a vermifuge, when no other effect has been produced than a removal of the fever.

PISS WORT. See *Flea Bane.*

PLANTAIN, *Plantago*—Has long been employed as an antidote against the bites of snakes, spiders, and other venomous insects. The juice, extracted from the whole of the plant, is generally given in doses of two table-spoonfuls every hour, or oftener, until the patient is relieved. It is sometimes given in conjunction with horehound or rue. The leaves bruised are considered by some a good application to fresh wounds.

PLEURISY ROOT, *Asclepias Decumbens*—Has a variety of names, as butterfly weed, flux root, decumbent swallow wort. It is a beautiful plant, growing two or three feet high under fences and upland pastures. The flowers are of a bright orange colour, and appear in July and August. These are succeeded by long slender pods containing the seed, which have a delicate kind of silk attached to them. The root is spindle or carrot-shaped, of a light brownish colour on the outside, white within.

This plant possesses great medicinal virtues, and ought therefore to be cultivated in our gardens. It has long been employed as a remedy in the treatment of violent cold and pleurisies. No medicine is better calculated than this to produce general and plentiful perspiration without heating the body, and hence its well merited fame in curing the disease, which name it bears. Mr. Thomson Mason, of Virginia, was among the first who noticed the virtues of this plant, and from his long experience of its utility in pleurisy, recommended it as a specific. He states, that after the use of an emetic, and the loss of some blood, in the incipient stage, he administered, of the pleurisy root finely powdered, as much as would lie upon the point of a case-knife, in a cup of warm water, and repeated the dose every two hours until the patient recovered, which happened frequently in a very few days. By these simple means Mr. M. cured great numbers.

We have also, many of the most respectable physicians celebrating its virtues in pleurisy, and other recent affections of the breast. A tea cupful of a strong infusion, a handful to a quart of boiling water, is given every two or three hours. Professor Barton says the root of this plant in powder possesses a purgative quality, and that he has used it with advantage in dysentery. In Virginia also it has been used with great effect in this complaint. This root is frequently resorted to by country people for the relief of pains of the stomach from flatulence and indigestion, hence it is called by some wind-root.

The late Paul Hamilton, Esq. ascribed the same virtues of curing pleurisies and dysentery to a plant that grows in South Carolina, and which is also called PLEURISY ROOT, *Asclepias Erectus*. He thus describes it:

It grows in rich high lands. The root has the appearance and taste of a small, long, sweet potatoe; the stalk erect; the leaves resembling the persimmon leaf, is situated transversely, and when broken, it throws out a viscid milk; blossoms in May and June. The blossoms are a cream colour, with purple centres. Twenty grains of this root in powder, he says, given in warm water or tea, is excellent in flatulent colic; and the same quantity repeated every two hours, in pleurisy, will seldom fail to bring on a perspiration, while its pectoral effects are admirable.

POISON OAK, *Rhus Toxicodendron*—Embraces several species, the most dangerous of which is the swamp sumac. The poison may be communicated, not only by the touch, but also by the smoke, smell, or steam producing an eruption on the skin, with pain and itching, and sometimes attended with swollen head and fever. One of the best remedies which has come under my notice, is a wash of crude sal ammoniac and corrosive sublimate, two drachms of the former to one of the latter, in a quart of water, used externally twice or thrice a-day, with a dose or two of salts, or an infusion of senna and salts.—I have lately been informed, from a source which can be relied on, that LIME WATER excels any other application as a wash in this distressing affection of the skin. The species called sometimes poison wood, has a low shrubby stalk, the leaves somewhat heart-shaped, the flowers small, the berries round, and of a yellowish grey colour when ripe. Dr. Anderson, of Hull, has employed the leaves of this species in doses from half a grain to four grains, three times a-day, with success in paralytic cases.

Poison vine, called also poison creeper, has a slender stem, and frequently climbs to the top of our tallest trees. The flowers, which appear in June, are small, of a light yellow colour, and have a delightful odour. An extract of the leaves, two grains to a dose, and increased, has been successfully employed in paralytic affections, as well as an infusion in tetter-worm and scald head. Professor Barton says, that a decoction has been used with seeming advantage in cases of consumption; and others say, that a decoction of the root is serviceable in asthma.

POKE WEED, *Phytolacca Decandra*—Is known by a variety of names, as American night shade, coacum, garget, skoke. The berries steeped in spirits, have long been employed in the chronic rheumatism. It has, however, sometimes failed, which may have been owing to the peculiarity of constitution, or to the inertness of the bounce or tincture from age, an effect often observed by professor Barton, as also by myself. From the authority of this learned professor, the juice of the ripe berries, inspissated to the state of an extract, and spread upon a rag, or upon the leaf of the plant, is an excellent application to scrofulous or indolent tumours. The juice of the leaves has been applied in the same manner with equal advantage. An ointment of the leaves with lard is good in various kinds of ulcers. The roots, bruised, are sometimes applied to the hands and feet of the patients in ardent fevers. To make an extract, expose to moderate and continued heat, the juice of the berries or leaves, until, by evaporation, it thickens to the consistence of honey. It may also be made from the root, which is equally efficacious. Boil the roots for some time, strain the decoction, and then reboil it to a thick consistence. Other virtues have been recently ascribed to this plant by respectable physicians.

An infusion of the leaves is recommended externally as an admirable remedy for the piles. One ounce of the root steeped in a pint of wine, and given to the quantity of two table spoonfuls, is said to operate mildly as an emetic.—It is also said that this plant may be relied on as an efficacious remedy for the venereal disease, in its various stages, even without the aid of mercury.

From my own experience of the virtues of poke weed, I can recommend it as a most valuable medicine in rheumatic and gouty affections, as also in nocturnal pains, and obstinate ulcerations in the venereal disease, brought on by the excessive use of mercury. The usual form of exhibition is the bounce, a wine glassful three times a-day. The bounce is prepared by filling a jug with the whole berries when ripe, and then pouring as much spirits to them as the vessel will contain.

An ointment, prepared by simmering slowly the leaves or a handful of the root scraped in a pint of hog's lard, with a small portion of beeswax, has been used with great success in cancers, and various kinds of ulcers.

POLYGONUM—An infusion of it, as a diet drink, is a powerful promoter of urine, and very useful in gravel complaints.

POLYPODY, COMMON, *Polypodium*—Grows on old walls, shady places, and at the roots of trees, flowering from June to October. The root has a sweetish taste, but by long boiling becomes bitter. An infusion of half an ounce of the fresh root in half a pint of boiling water, in doses of a wine glassful every hour or two, operates as a mild laxative.

POMEGRANATE, *Punica*—Is cultivated in the southern gardens. The fruit is agreeable to the palate, and possesses the properties of subacid fruits.—Its rind, boiled in milk, and drank freely, or in powder, a tea spoonful for a dose three times a-day, has been used with success, in diarrhœas, dysenteries, and other diseases requiring astringent medicines. The flowers possess the virtues of the rind, only in a less degree.

POPLAR TREE, OR WHITE WOOD, *Liriodendrum Tulipifera.*—The bark of this noble tree, as well as the root, is a very strong bitter, and considerably aromatic.

In intermittents, in the last stage of dysentery, and other disorders requiring tonic medicines it is considered but little inferior to the Peruvian bark, and is generally employed in similar doses and forms.

Professor Bigelow states that the bark is acceptable and apparently useful to patients who have derived occasional benefit from "Huxham's tincture," "Stoughton's Elixir," and similar compositions of bitter and aromatic drugs.

There is another species of poplar, the aspen tree, *populus tremula*, the bark of which, according to professor Barton, is also an excellent tonic and stomachic.

POPPY, WHITE, *Papaver Somniferum*—Grows in our gardens, and yields a juice, which, when inspissated, to a proper consistence, is called opium.

According to the experiments of Dr. S. Ricketson, of Duchess county, New York, the opium obtained from our poppies, is equal, if not superior to the imported. With respect to the method of cultivating the plant, and preserving the opium, we shall insert the directions given by Dr. Ricketson.

"The poppy seeds should be planted about the middle of May, in rich moist ground, an inch deep, and ten or twelve inches apart, and kept clean. When the plants are arrived to the state of flowering, on a sun-shining day, cut off the stalks, at about an inch distance from the flowers, and as soon as the juice appears, which it does at first equally well on the part of the stalks cut off with the flowers, as on the standing part, collect it with a small scoop, or penknife. After the juice ceases to appear on the standing stalk, it should be cut off about an inch lower, when it will be found to yield almost as freely as before, and repeated as long as any juice appears. The juice, when collected, should be put into an evaporating pan, placed in the sun's heat, and frequently stirred, till it becomes of a consistence to be formed into pills, or to be made into rolls for keeping and exportation. The quantity of opium that may be preserved, depends very much on the largeness of our plants, and the care used in collecting it. From one poppy plant, I have obtained seven grains of opium. If any would choose to have the opium freed from its impurities, it may be easily done, by pressing the juice, before it is inspissated, through a linen strainer; but if pains be taken, according to the foregoing directions, I believe there will be little or no occasion for it."

A strong decoction of the dried heads mixed with half the quantity of sugar, or honey, and formed into a sirup, by simmering slowly by a gentle fire for an hour, is occasionally used in doses of a table spoonful in coughs and breast complaints, on account of its anodyne effects.—Poppy heads are also used externally in fomentations and poultices, either alone, or conjoined with the leaves of southern wood, camomile flowers, or other ingredients.

POTATO, SWEET, *Convolvulus Batata*—From this root Bowen's patent sago is prepared, which forms a very nutritious jelly, like arrow root, and is prepared in the same manner; to which the reader is referred.

The process generally used for procuring the powder of the sweet potato, is to grate the clean roots, wash the mass through brass sieves of different sizes, and collect the flour at the bottom of the vessel which receives the fluid; finally, dry it in pans either by the fire or in the sun.

The vine of the sweet potato, supports the famous insect, called the potato fly, which, from repeated experiments, is found fully equal in all respects to the best Spanish flies. The potato flies generally make their appearance about the last of July or first of August, and may be collected in great abundance morning and evening, by shaking them from the leaves in a vessel of hot water, and afterwards drying them in the sun. These insects will also feed upon the vine of the Irish potato. As they can be procured in immense quantities annually, with but little trouble, every family should carefully collect them.

POTATO, WILD, *Convolvulus Panduratus*—Grows in low grounds and sandy soils, near running water.—It trails along the ground several feet, much like a grape vine, the root very large, hard, and white, running very deep in the earth; the leaves triangular, the flowers are whitish, with a purple tinge, and bell-shaed . It is called wild rhubarb, and from the article whose name it bears, is employed as a purgative in doses from a tea to a table spoonful of the powdered root. Professor Barton says, the root in powder or decoction has been much recommended in Virginia, and other parts of the United States, in cases of gravel. The decoction is prepared by boiling slowly a handful of the root sliced or bruised in three pints of water to a quart, of which, in gravel complaints, a tea cupful may be taken four or five times a-day.

PRICKLY ASH, AND PRICKLY YELLOW WOOD, *Zanthoxylum*—Possess the same virtues. Both species are covered with numerous prickles, whence the name.—Both the bark and berry are of a hot acrid taste, and when chewed, powerfully promote spittle. It is used in this way to cure the toothach, as well as putting some within the hollow, also to cure the palsy of the tongue.

The prickly ash has a great deal of reputation in the United States as a remedy in chronic rheumatism. In that disease its operation seems analogous to that of Mezereon and Guaiacum, which it nearly resembles in its sensible properties. It is not only a popular remedy in the country, but many physicians place great reliance on its powers in rheumatic complaints, so that apothecaries generally give it a place in their shops. It is most frequently given in decoction; an ounce being boiled in a about a quart of water. Dr. G Hayward, of Boston, states that he took this decoction in his own case of chronic rheumatism, with evident relief. It was prepared as above stated, and about a pint taken in the course of the day, diluted with water sufficient to render it palatable by lessening the pungency. It was warm and grateful to the stomach, produced no nausea nor effect upon the bowels, and excited little, if any, perspiration. There is no medicine which I have found so effectual in relieving nocturnal pains, and disposing venereal ulcers to heal, as the prickly ash in the above form and doses.

A tincture, prepared by steeping half a pint of the berries, or a handful of the bark, in a bottle of spirits, is much esteemed as a remedy in doses of a wine glassful, in flatulent colics. It is sometimes employed in this form, in cold phlegmatic habits, afflicted with the rheumatism.

PRICKLY PEAR—Grows on sandy lands and rocky places. A large handful of the pear cut in slices, boiled in a quart of milk, and taken in doses of a gill every morning, is reputed to be of great benefit in scurvy, dropsy, cancers, and cutaneous eruptions; and that the inner soft mucilage of the pear, while green, on a rag, to ulcers, morning and night, is very efficacious. It is also said that a fresh piece of the inner side of the pear, applied twice a-day to corns, after soaking the feet in warm water, and paring off the horny part, will in a few days perform a cure.

PRIDE OF INDIA, OR CHINA, *Melia Azedarach*—Is now completely naturalized to the southern states. The public walk and streets of Savannah and Augusta, are ornamented by rows of this tree, a mile long, which furnish a most delightful shade against the scorching sun, and add not less to the healthiness than to the beauty of these cities. Independent of its luxuriant verdure, and cooling shade, it is highly valuable for its medicinal properties, being now ascertained to be one of the best vermifuges in nature.

Many physicians in the southern states have witnessed its remarkable effects in destroying and dislodging worms. It has been even found a remedy against the tape worm.

I have not myself made use of this medicine, possibly because of the deleterious effects of the berries on some pigs and a parrot.

In the fall of the year 1795, at a country seat which I then owned, in Lancaster county, Virginia, a sow with eight or ten pigs came into the yard where I had several trees of the Pride of China, and observing the pigs to eat with avidity of the berries, which were dropped on the ground, I had many of them thrown from the tree, and in a few hours all the pigs were seized with the common symptoms of inebriation, and died. The sow did not appear to be the least affected, although she also ate of them. The death of the pigs would not have operated so strongly on my mind had it not been for a parrot, which not long after fell a victim to those berries. This enchanting bird, which spoke many words as plainly as a human person, and which for several years had been a pet in the family of Dr. Andrew Robertson, the father of Mrs. E****, had not long arrived at its new home, before it was tempted to eat of the fruit of this tree. A gentleman who was not apprised of the deleterious properties of this berry, presented the much-admired Poll with one of them, which she soon ate, and relished it so well, as loudly to call out, "*give me some more!*" "*give me some more!*" After consuming several, she in a short time fell into a state of stupefaction, followed by a violent purging, which soon terminated her existence.

The common modes of using this medicine, are the infusion or tea, and saturated decoction. Of the former a handful of the bark to a quart of boiling water, is given in doses of a small teacupful morning and night. The decoction is made by boiling a large handful of the fresh bark of the root in three pints of water to a quart, which is given to children in doses from a half to a whole wine-glassful. Dr. Kollock, of Savannah, observes, when exhibited in the latter form, every three hours, until it operates.

he has found it beneficial as a febrifuge in those affections usually denominated worm fevers, but where no worms are voided. The pulp which invests the stone of the fruit, pounded with tallow, has been successfully employed in cases of scald head. Would not an ointment prepared by slowly simmering the root in hog's lard be found also an excellent application to that loathsome disease; also to tetter worms and ulcers?

PUCCOON. See *Blood root.*

QUEEN OF THE MEADOWS—Grows in hedges, and on the sides of meadows, about four feet high; the stalk reddish, leaves long, spear-shaped, and opposite each other; flowers purple.

A large handful of the roots boiled in three pints of water to a quart, and given in doses of a tea-cupful every two hours, is said to be an excellent remedy in suppression of urine, and carrying off the water in dropsy.

QUINCE TREE, *Pyrus Cydonia*—The liquor expressed from the ripe quince, also the sirup, has frequently been given with great success in nausea, vomiting, and fluxes.

The juice of the quince with sugar, a gallon of one to two pounds of the other, is said to make a most delightful wine. The ripe fruit sliced and steeped in French brandy or spirits, with a little sugar, or equal parts of the juice and spirits sweetened, forms an admirable cordial and stomachic. The quince makes also a nice preserve, and the seeds a fine mucilage, which, with sugar and nutmeg, is an excellent drink in dysentery.

RADISH, *Raphanus*—Is esteemed as an anti-scorbutic, particularly if eaten with the skin. When old, or after having been kept some time, they ought to be avoided, especially by persons of weak stomachs, as apt to create indigestion and colic, and to render the breath disagreeable..

RASBERRY, *Idœus*—Like the rest of the rich subacid fruit, when ripe, are wholesome and nourishing. Rasberries, as well as strawberries, held in the mouth, will dissolve tartarous concretions formed on the teeth.

RATTLE, OR SENEKA SNAKE ROOT, ***Polygala Senega***—Grows nearly a foot high, the leaves pointed, and somewhat oval; the stalks upright and branched, the flowers white, the root variously bent and jointed, whence it is supposed to resemble the tail of the animal whose name it bears.

The first reputation of the Seneka root was one which it divides with a multitude of other plants, that of curing the bite of the rattle snake.* A reward was given by the Legislature of Pennsylvania, to Dr. Tenant, for the promulgation of this supposed property. When, however, we consider the number of cases of recovery from the bite of this serpent, under every variety of treatment, we cannot avoid the conclusion, that these injuries are not necessarily dangerous, and that spontaneous recoveries are, perhaps, as frequent as those which are promoted by medicine.

In violent colds, croup, pleurisy, acute rheumatism, and all inflammatory complaints, I can recommend it as an admirable medicine to promote perspiration. The best form of using it is in decoction, a handful to a quart of boiling water, a wine glass ful to adults, every two or three hours, increasing or lessening the quantity to avoid vomiting and purging.

Professor Chapman recommends it very highly in obstructions of the menses; four ounces of the decoction to be taken in the course of the day, increasing the quantity when the menstrual effort is expected, as far as the stomach will allow. If this excite nausea, aromatics are to be added, as cinnamon, calimus and angelica.

Dr. Archer, of Hartford county, Maryland, was among the first who noticed the efficacy of this medicine in cases of croup or hives.

He directs a tea spoonful of the strong decoction to be given to a child every hour or half hour, as the urgency of the symptoms may demand, and during the intervals a few drops occasionally, until it acts as an emetic or cathartic; then repeated in small quantities, to keep up a constant stimulus in the mouth and throat. Patients who use this medicine, should not be permitted to drink any thing whatever for some time after each dose. He employed it in the form of powder in doses of four or five grains, mixed with a little water.

Professor Barton, with his usual candour and liberality, observes, "I am persuaded that the Seneca is a very important medicine in the treatment of this common, and too frequently unmanageable disease; and praise is, in my opinion, due to Dr. Archer for his important discovery, for such I cannot but deem it. That the Seneca is a specific or certain remedy for the cure of croup, I do not believe; but from my own experience I am led to repose more confidence in the use of this medicine than in any other. I have made use of a very strong decoction of the root. I have always given it in large quantities. It appears to be chiefly beneficial when it occasions an expectoration of mucus, and when it proves emetic. It is also very useful by virtue of its purgative quality. But I have known it occasion very plentiful stools, without benefiting the patient. Indeed, in the exhibition of Seneca, I would rather wish to guard against large purgings. I have sometimes treated my patients almost entirely with Seneca. Even in such cases I have perceived most unequivocal good effects from it. But have more generally given along with the Seneca, calomel, and sometimes calomel combined with ipecacuanha. I have not omitted the employment of the lancet, though this in many cases of croup is not absolutely necessary, and the use of blisters or sinapisms applied near the seat of the disease. I am happy to close this short notice by observing, that several respectable physicians in Philadelphia inform me that they have used the Seneca with much advantage in the disease in question.

In various forms of dropsy, the Seneca root has been resorted to with advantage, and has received the commendations of Percival, Millman, and some others. Its cathartic and diuretic effects are very considerable, when persevered in, in large quantities; and have, in many instances, effected the dissipation of dropsical swellings. In the prevailing epidemic I have found a decoction of this vegetable, taken freely at the commencement of the disease, a medicine of great utility.

RATTLE SNAKE VIOLET. See *Violet.*

RED CEDAR, *Juniperus Virginiana*—Is found from Lake Champlain to the Cape of Florida. The leaves have a strong disagreeable taste, with some pungency and bitterness. Its most frequent use is in the composition of the cerate employed for keeping up the irritation and discharge of blisters. This preparation is the same with the Savin cerate, used in Europe, the leaves of the red cedar being substituted for the Savin. When properly prepared by boiling the fresh leaves for a short time in about twice their weight of lard, with the addition of a little wax, a cerate is formed, of peculiar efficacy as a perpetual epispastic. When applied as a dressing to a newly vesicated surface, and afterwards repeated twice a-day, it rarely fails to keep up the discharge for an indefinite length of time. Under its operation, the discharge usually changes from a serous to a puriform appearance, and concretes upon the surface; so that it requires to be removed from time to time, to admit the full action of the cerate.

Internally, the leaves have been found to exert effects very similar to those of the Savin. They have proved useful as an emenagogue, and as a general stimulant and diaphoretic in rheumatism. They have also had some reputation as a diuretic in dropsy.

RHUBARB, WILD. See *Potato, Wild.*

ROSE, *Rosa.*—The hundred-leaved, or damask rose, is justly termed the queen of flowers. Otto, or essence of roses, is obtained from these by distillation, and is doubtless the most elegant perfume in vegetable nature. Independent of their use in this manner, a decoction of its leaves will be found a mild laxative, and, when formed into a sirup, may be given with advantage to children. The conserve of roses is also prepared from them for medicinal purposes.

ROSE WILLOW, *Salix*—Grows near brooks, along the banks of rivers, and on the borders of meadows. It is about the size of an apple tree, and covered with a greyish-coloured bark, and very red within, with a bunch in the top resembling a bunch of roses.

Four ounces, or a large handful of the bark, boiled in three pints of water to a quart, and taken in doses of a tea cupful three or four times a-day, is said to be an excellent remedy in cases of gleet, the whites, immoderate flowing of the menses, and in cutaneous eruptions.

RUE, *Ruta*—Has an ungrateful smell, and a pungent bitter taste. The leaves are acrid, and when applied to the skin are apt to produce blisters. Employed in the form of tea, they are reputed to be of great service to persons of cold phlegmatic habits. According to Boerhave, an infusion of the leaves powerfully promotes perspiration, quickens the circulation, removes obstructions, and is particularly adapted to weak and hysterical constitutions, suffering from retarded, or obstructed secretions.

SAGE, *Salvia*—An infusion of the leaves, or tea, is considered serviceable to persons of cold phlegmatic habits, labouring under nervous debility. Sweetened with the addition of a little lemon juice, it forms an exceedingly grateful and useful drink, in febrile disorders.

Sage was supposed by the ancients to possess the virtue of prolonging human life; hence the following verse: "Cur moriatur homo, cui salvia crescit in horto?" How can a man die, in whose garden there grows sage? in allusion to its many virtues. What a shameful abuse of this pretended property was made by the late sir John Hill, in his patent tincture of sage, for the prolonging of human life, and warding off old age, is known to every one. This conduct could not fail to draw upon him the pen of the wits of the age; and Garrick, with Thomson, conjointly published the following epigram:

Thou essence of dock, valerian and sage,
At once the disgrace and pest of the age,
The worst that we wish thee for all thy bad crimes,
Is to take thy own physic, and read thy own rhymes.

Dr. Hill made the following reply:

Ye desperate junto, ye great, or ye small,
Who combat dukes, doctors, the deuce, and them all,

Whether gentlemen, scribblers, or poets in jail,
Your impertinent curses shall never prevail;
I'll take neither sage, dock, nor balsam of honey;
Do you take the physic, and I'll take the money.

Such shameless imposition on common sense, deserves something worse than *ridicule;* for deceiving the sick and helpless, they merit the execrations of every man who has one spark of humanity.

SAMSON SNAKE ROOT—Grows from six to twelve inches on dry land, and bears on the top two or three pale blue flowers; leaves opposite, sword-shaped; the root matted, variously bent, and has an agreeable bitter taste.

Upon the respectable authority of the honourable William Mayrant, of South Carolina, the root of this plant possesses in a very great degree tonic powers. He stated to me, that being himself reduced to a mere skeleton by dyspepsia, or indigestion, and having tried the usual remedies employed in such cases, without receiving any benefit, he was at length induced, as his last hope, to try the virtue of this plant, which had been recommended to him by a negro man. He was directed to steep a handful of the root in a bottle of spirits, of which he was to take half a wine glassful diluted with water three times a-day; and such was the astonishing effect wrought by this medicine, that in a few weeks his health was perfectly reinstated. He discovered the plant to grow near Fredericksburg, Virginia, and collected some of it to exhibit in Washington. Several persons in delicate health, and troubled with dyspepsia, were readily persuaded, from the recommendations of Col. Mayrant, to make use of his favourite remedy, and not without receiving considerable benefit. It may be taken in the form of powder, tincture, or decoction.

SANICLE, AMERICAN. See *Alum Root.*

SARSAPARILLA, *Smilax Sarsaparilla*—Grows in several parts of the United States. It is a small vine resembling a bramble.

A decoction of sarsaparilla, prepared by boiling a large handful of the root in a quart of water, till the third part be evaporated, has long been employed as an auxiliary to mercury, in the treatment of venereal complaints. It promotes perspiration, attenuates viscid humours, relieves venereal headach, nocturnal pains, and disposes venereal ulcers to heal. In rheumatic affections, cutaneous disorders, and scrophula, it is a very useful medicine. It may also be exhibited in the form of powder in doses of two drachms, or extract in doses of one drachm, three or four times a-day.

SASSAFRAS, *Laurus Sassafras.*—An infusion or tea of the flowers, or bark of the root, has often been successfully given as a sweetener or purifier of the blood, in scorbutic, venereal, and cutaneous disorders, or where an acrimony of the fluids prevails. Conjoined with bark of dogwood, cherry tree or oak, it is very useful in obstinate intermittents. The oil, externally applied, in the chronic rheumatism, and also in wens, has oftentimes proved salutary. The pith of the small twigs, in water, forms a mucilage of excellent use for sore eyes, and as an injection in the insipient stage of gonorrhœa. It also affords, when sweetened, with the addition of nutmeg, a palatable jelly, useful in dysentery and febrile diseases.

SCULL CAP, BLUE. See *Hooded Widow Herb.*

SCURVY GRASS, *Cochleara Officinalis*—Is a pungent stimulating plant, and in the simple state of a sallad, or in the form of expressed juice, a wine-glassful three times a-day, has long been esteemed one of the best of all the anti-scorbutic plants.

SENNA, AMERICAN, *Cassia Marilandica*—Is easily cultivated from the seeds, and ought to be more generally introduced in our gardens.

It has long been employed as a purgative. To increase its effects on the bowels, manna, salts, or tamarinds, are generally added. To correct its ill flavour, and prevent griping, it should be joined with some aromatics, as coriander or fennel seed, ginger, &c. In the form of decoction, a handful to a pint of boiling water, the dose is a tea cupful every hour or two until it operates. It may also be exhibited in the form of tincture, to relieve flatulent colics, four ounces of senna to a quart of spirits, with an ounce of coriander seed, or ginger, and a wine glassful the dose.

SKOKE. See *Thorn Apple.*

SKUNK CABBAGE, *Draconitu Fœtidum*——Abounds in swamps and meadows, and emits a disagreeable smell, nearly resembling that of a skunk or pole-cat, and from this, and its leaves resembling those of a cabbage, it has acquired its name.

The roots dried and powdered, have proved of excellent use in asthmatic cases, and often afforded relief in this distressing disease, when other means were ineffectual. It should be exhibited during the paroxysm, and repeated as circumstances may require, in doses of thirty or forty grains. It will be proper to persevere in the use of it for some time after the paroxysm has gone off, until the patient has perfectly recovered.

Dr. Cutler has celebrated its efficacy in his own case of asthma, after other medicines had failed. In one of the most violent asthmatic cases, two tea spoonfuls of the powdered root, in spirits, procured immediate relief; and on repeating the trials with the same patient, it afforded more lasting benefit than any other medicine. In childbed it produces the desired effect, in doses of a tea spoonful repeated occasionally. In numerous other instances of spasm, and also in chronic and acute rheumatism, and dropsy, in powder or decoction, it has performed important cures. The seeds possess the same virtues with the root.

Dr. Cutler vehemently cautions, that, in collecting the roots, the white hellebore, or poke root, which some people call skunk weed, be not mistaken for this plant, as the consequence might be fatal. There is an obvious difference; the hellebore has a stalk, but the skunk cabbage has none, and the roots of the latter are much larger than those of the former.

SOAPWORT, *Saponaria Officinalis*—Grows in moist swamps and meadows, particularly on the Ohio river, where it is used as a substitute for soap. It rises about a foot high, the leaves are pointed, and furnished with three ribs, the flowers numerous, large, and of a pale pink colour.

A handful of this plant boiled in three pints of water to a quart, in doſes of half a pint, three or four times a-day, has been found useful in the jaundice, obstructions of the liver, and the venereal disease.

SORREL, *Oxalis Acetosella*—Called also sour tree foil, or cuckow bread. Yields, on expression, a grateful acid juice, which has been beneficially used in the scurvy and scorbutic eruptions. An infusion of the leaves makes a palatable diet drink in fevers, and on being boiled in milk, forms an agreeable whey. A conserve made of the leaves, with double their weight of loaf sugar, forms an excellent substitute for lemons, and may be given with advantage, in all putrid and other fevers, where anti-septics are indicated. The leaves bruised, and externally applied to scrofulous ulcers, have produced excellent effects, by promoting suppuration and granulation.

SOUTHERN WOOD. See *Mugwort.*

SOUTH SEA TEA, OR YAUPON, *Ilex Vomotoria*—Grows abundantly in the southern states. It rises about twelve feet high, shooting into many upright slender stiff branches, covered with whitish smooth bark; the leaves small, evergreen, and saw-edged; the flowers small and white, and grow promiscuously among the leaves, succeeded by small berries, which become red in October, and remain so all the winter.

It is held in great esteem among the southern Indians. They toast the leaves, and make a decoction of them, which is called black drink.

An infusion, or tea of the leaves, is considered as palatable as Bohea tea, and when used freely, is a powerful diuretic, and hence of service in the cure of dropsy and suppression of urine.

SPIKENARD, *Aralia Racemosa*—Grows in low rich grounds and among rocks, to the height of three or four feet; the leaves are many, on long branches, from a thick purplish stalk, flowers very small, of a bluish colour, producing berries much resembling those of the elder, of a sweetish pleasant aromatic taste. The roots are very long, about the thickness of a finger.

A pint of the berries steeped in a quart of spirits, in doses of a wine glassful, is said to be a speedy cure for the gout in the stomach. The roots in the form of infusion, a handful to a quart of water, and given in doses of a tea cupful three or four times a-day, have been found efficacious in gouty complaints. The fresh root applied in the form of poultice, is said to be excellent for wounds or ulcers.

SPLEENWORT. See *Maiden Hair.*

SPRUCE LAUREL. See *Mezereon.*

SQUIRREL EAR, OR EDGE LEAF—According to the late Paul Hamilton, Esq. is produced on barren pine land, in Carolina and Georgia. It is a species of sage, and very efficacious as an antidote to the poison of the snake bite. It is known by the remarkable characteristic which forms its name; the leaf, instead of the surface, presents its edge to the sun, and is in colour and shape, very much like the ear of a squirrel, although larger. The stalk never rises beyond three feet, and its leaves are alternate and transverse.

A wine-glassful of the juice of this plant has been known to rescue from death persons bitten by the rattlesnake, who were so far gone, as to be incapable of speaking. The flower of this plant is white and fuzzy, and appears in every warm month in the year; the smell that of mellilot, with a slight tincture of the aromatic.

STAR GRASS, *Aletris Farinosa*—Grows in fields and about the edges of woods, and flowers in June and July. The leaves are grass-like, but smooth and stiff, of a willow-green colour, and spread like a star upon the ground. No plant, says Dr. Bigelow, surpasses this in genuine, intense and permanent bitterness. Hitherto, it has been chiefly used as tonic, exhibited in small doses.

STINK WEED. See *Thorn Apple.*

STRAWBERRY, *Fragaria.*--The fruit of this plant is delicious, and being of a cooling and laxative nature, may be considered as medicinal. If freely eaten they impart their peculiar fragrance to the urine, and when retained in the mouth for some time, dissolve tartareous concretions on teeth. They are of great service in cases of scurvy, and according to Linæus, a copious use of them has proved a certain preventive of the stone in the kidnies. An infusion of strawberry leaves, while young and tender, makes excellent tea; but for such purpose they ought to be dried in the shade, being slightly bitter and styptic. They have been used with advantage in laxity and debility of the intestines, as likewise in hemorrhages and other fluxes. Lastly, they are of considerable service as aperients, in suppression of urine, visceral obstructions, and jaundice.

SUMACH, COMMON, *Rhus Copallinum.*—The berries or seeds, when ripe, are red and very acid. An infusion of them, sweetened with honey, is a good gargle for the sore throat, and for cleansing the mouth in putrid fevers.

Mr. Jesse Torrey considers the bark of the root of sumach to be one of the best anti-septics produced by vegetation. Corroding ulcers, defying every common application, immediately began to heal by washing them with a strong decoction, and applying the boiled bark as a poultice. He says it is a very important material in decoctions for hectic and scrofulous diseases. Sumach constitutes one of the ingredients of the following recipe, which was handed to me by a gentleman of the first respectability and veracity, as a remedy for the venereal disease.

Of the inner bark of pine and swamp elm, and the bark of the root of sumach, take each one pound, boil them in a gallon of water to three quarts, drink half a pint three times a-day; if costiveness be produced, a dose of salts may be used. If there be ulcers, they are to be washed with a decoction made warm. The detergent effects will appear in a very short time. Abstinence from too much stimulants will accelerate the cure. This remedy is one of Heaven's best mercies to offending man, and instances can be produced of the effects of it, which would stagger credulity. Mercury, and nitric acid, have failed, but this has never been known to fail when properly applied. It is, moreover, a fine application in dysenteric affections.

SUNDEW, *Ros Solis*—Called also red root, or youthwort. Grows in mossy bogs, flowering in July and August.

The whole of this singular plant is acrid, and its juice sufficiently caustic to corrode corns and warts. It is said the juice, properly mixed with milk, and applied to the skin, will remove freckles and sun-burns.

SWALLOWWORT. See *Pleurisy Root.*

TANSY, *Tanacetum Vulgare*—This plant possesses a warm bitter taste, and may be used as a substitute for hops. An infusion of the leaves is recommended for a weak stomach, hysteric complaints, and obstructed menses.

According to Dr. Withering, its seeds are an excellent vermifuge, in doses from a scruple to a drachm, and that if animal substance be rubbed with the herb, it will be effectually preserved from the attack of the flesh fly.

THORN APPLE, *Datura Stramonium*—Has a variety of names, as James town, or jimson weed, French apple, stink weed, &c. Its common name James-town weed, is said to have arisen from the circumstance of a number of sailors being violently diseased by ignorantly eating the boiled plant at Jamestown, in Virginia, at its first settlement. It grows among rubbish, and on dunghills, to the height of two or three feet, flowers in July and August. The corolla is funnel-shaped and plated white with a tinge of purple. The capsule is large, egg-shaped, and covered with thorns, which have four divisions, and contain numerous kidney-shaped seed. The leaves are large, egg-shaped, and deeply indented, of a disagreeable smell, and nauseous taste.

Every part of this plant is a strong narcotic poison; nevertheless, when judiciously administered, it is unquestionably one of the most valuable medicines in our possession. Professor Barton considers it a medicine of great and invaluable powers, especially in cases of mania, attended with little or no fever, or with a cold skin and languid circulation. The form in which he exhibited it, was that of an extract prepared from the first leaves, beginning with a few grains, and gradually increasing the dose to fifteen or twenty grains. In one case of mania, in a woman, he increased it to sixty grains. In a few weeks it brought on an eruption in various parts of the body, "and she was dismissed," he observes, "from the hospital, perfectly curred." Dr. Fisher recommends it highly in those cases of mania in young persons, where fits occur daily, or monthly, at regular periods, especially if assisted by chalybeates, or such other medicines as particular symptoms require, but advises the free and regular use of it, one or two doses every day. The most convenient form, especially for children, he thinks, is the saturated tincture; the requisite dose may be known by the dilitation of the pupils.

Dr. Alexander King, of Connecticut, has employed this medicine, in the form of decoction, one drachm of the seed bruised, boiled in half a pint of water to a gill, in several cases of inflammation of the brain, attended with delirium. The following is one of the cases recited by the doctor.

A man of robust constitution, and sanguine habit, about twenty-six years of age, after drinking pretty freely, was seized with a slight paroxysm of the apoplexy, which was followed with a cold fit of fever, attended with a violent pain of the head, and delirium. On the second day I found him delirious, with an inflammation of the brain, or rather the meninges. I bled him largely, so that he even fainted in a recumbent posture, which was succeeded by another partial paroxysm similar to the first. I put him on a course of medicine, nearly the same as prescribed in a former case. The next day I found no abatement of the symptoms; he had slept none for two nights past, and was quite outrageous. I then prescribed for him a decoction of the seeds of the datura stramonium, and directed the nurse to give him a tea-spoonful every quarter of an hour. I found, on visiting him the next morning, that soon after taking the decoction, he became calm and composed, and went to sleep. I continued the same medicine through the course of the fever, which lasted about seven days, except one day in which I purposely omitted the use of it, in order fully to satisfy myself as to the operation of the medicine. On that day the delirium returned, and he slept none the night following. The next morning I had recourse to the decoction as usual, and it produced the same salutary effects as before.

In this case, I had a fair opportunity to observe the action of the medicine, in an early stage of the disease, which was cooling, anodyne, and sedative.

As a remedy in epilepsy, professor Barton thinks it may be relied on even in the most deplorable cases. A lady, aged fifty-five, having for some months been afflicted with alarming attacks of epilepsy, by which her powers of intellect and of articulation were impaired, happily experienced a restoration, by taking one grain of the extract once in twenty-four hours. Although she did not suffer another attack, after commencing the course, she found it necessary to continue it for several months, to remove all apprehensions of a recurrence. A single grain seldom failed to excite unpleasant vertiginous sensations, accompanied with efflorescence of her face, and some degree of sleepiness. In asthma and spasmodic cough, stramonium is said to have proved essentially beneficial. It is also said to have produced salutary effects in cases of chronic rheumatism, and difficult menstruation.

As this medicine is endued with most active powers, it ought to be administered in very small doses at first, and the quantity gradually increased daily, until it produce, in a slight degree, vertigo, or dilitation of the pupil.

In the course of my practice, I witnessed the deleterious effects of this plant in a child, who was attacked with convulsions similar to those which attend persons afflicted with the disease termed St. Vitus's dance, accompanied with delirium, tremour, thirst, glaring eyes, dilated pupil, and considerable efflorescence of the skin. The parents were perfectly ignorant of the cause of the child's sudden indisposition; but from the symptoms, I was convinced it had taken some of the stramonium, and on making the necessary enquiries, learned it had been playing with some of the seeds a few hours before. Immediately on visiting the child, I directed the warm bath, and gave it six or eight grains of blue vitriol, which was repeated at the interval of fifteen minutes, before it excited vomiting, when some of the seeds were thrown up. After the operation of the emetic, I administered a large dose of castor oil, which, assisted by stimulating injections, produced in a few hours some evacuations, and the child was entirely relieved from all those distressing symptoms. Domestic practitioners will recollect, that two or three grains of blue vitriol is a full dose for adults; and the large dose given in this case was from persuasion that the child's stomach had been deprived of its sensibility, through the narcotic effects of the poisonous seeds.

The extract may be made by exposing the juice of the plant to the heat of the sun, or by boiling the bruised seed or leaves in water for the space of four hours; then strain off the liquor, evaporate over a gentle fire, without taking off the scum, until it has acquired the thickness of sirup: then place it in a warm oven, in an earthen vessel, until it becomes of a proper consistence for use. The dose is from one to two grains, or more, for an adult. The saturated tincture is prepared by steeping one or two handfuls of the leaves in a half pint of spirits for a few days.

The stramonium has also been employed externally with the most happy effects. In recent wounds, inflammations, or bruises, the leaves, either alone, or united with bread and milk poultice, have been applied to the part with manifest advantage. In the form of ointment, which is prepared by simmering slowly the fresh leaves bruised in hog's lard, with about one eighth part of beeswax, for an hour, and then strained through a coarse cloth, it will be found excellent for the piles, scalds, and burns. From my own observation it far excels all other applications I have made to obstinate cutaneous sores, ill-conditioned ulcers, and painful cancerous affections.

THOROUGHWORT, *Eupatorium Porfoliatum*—Is known also by the following names, thoroughstem, crosswort, boneset, and Indian sage. The first of these names, thoroughstem, has been imposed upon it from the peculiar structure of the leaves which are opposite, and appear as though the stem was thrust through them. It has received the second name of crosswort, by which it is known in many parts of Virginia, from the position of the leaves, each pair of which take their origin from opposite sides of the stem, so that they *cross* each other nearly at right angles. I am at a loss, says professor Barton, to refer the word boneset to its real origin; but I presume the plant received this name from the great relief which, on many occasions, it has been found to afford to persons labouring under violent remitting and other fevers, in which the bones are greatly pained. The resemblance of the leaves of this plant to those of the common sage, was long ago remarked by the botanists. Hence the name Indian sage, by which the eupatorium is known in some parts of Pennsylvania.

This plant flourishes in wet meadows, and other moist places. The stalk is hairy, and rises from two to four feet. The flowers are white, and appear in July and August. The leaves at each joint are horizontal, saw-edged, and rough, from three to four inches long, and about one inch broad at the base, gradually lessening to a very acute point, of a dark green, and covered with short hairs.

This plant possesses very active powers, and has been exhibited with uncommon advantage in intermittents, remittents, and other diseases of debility. When exhibited in the form of a warm decoction, a handful of the herb boiled in a quart of water, a wine-glassful every two hours, has proved *peculiarly beneficial*, says professor Barton, in fevers, by exciting a copious perspiration. In larger doses it proves emetic, with which view it is used in some parts of the United States, as an excellent remedy in intermittents. The dried leaves in powder, in doses of twelve or fifteen grains, are said to operate gently on the bowels. Every part of this plant may be advantageously employed in practice. The flowers, as a tonic bitter, are deemed equal to the flowers of camomile, for which they might be substituted on many occasions.

This medicine has also been found very efficacious in cutaneous diseases. In a peculiar and distressing affection of the herpetic kind, which was formerly very common in Virginia, and there known by the name of James River ring worm,* professor Barton states, from the respectable authority of Dr. Thomas Knox, of Culpepper county, Va. that a decoction of this plant drank daily, for a considerable time, made a perfect cure. A wine-glassful of the expressed juice of the green herb drank every hour, is celebrated as a certain cure for the bite of a rattle snake. The bruised leaves should be applied to the part.

THROAT ROOT. See *Avens.*

THYME, GARDEN, *Thymus Vulgaris*—Is one of the most powerful aromatic plants, and as such, is frequently employed in the form of tea, in those complaints where medicines of this class are indicated.

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* This disgusting disease prevailed mostly among the inhabitants on James River. It attacked the thighs, the scrotum, and especially the parts immediately adjacent to the anus. It extended its ravages into the rectum and perhaps much farther.

TOBACCO, *Nicotiana Tabacum*—This "obnoxious luxury," is a medicine of the most uncommon powers; being emetic, cathartic, sudorific, diuretic, expectorant, narcotic, and anti-spasmodic; hence its utility in a variety of diseases.

A table-spoonful of an infusion, one ounce in a pint of boiling water, will excite vomiting; however, as it has no peculiar property as an emetic, and its operation is attended with severe sickness, it is not often employed with this view. As a purgative, it is employed in the form of clysters, in all cases of obstinate costiveness. Exhibited in this form, in the quantity of two or three table-spoonfuls of the infusion, mixed to half a pint of milk or thin gruel, it has frequently afforded almost instantaneous relief in violent colics, after other medicines had proved ineffectual. If this quantity produces no relief, nor excite giddiness nor nausea, the injection may be repeated every half hour, with the gradual increase of the infusion, till one or other of these effects take place. By this mode of proceeding, the violent effects of tobacco may always be avoided. As a diuretic, it has on many occasions proved an invaluable remedy, as in ascites and other dropsical affections, also in gravel, or difficulty of making water. In those cases, according to Dr. Fowler, the dose for adults should be from sixty to one hundred drops of the infusion in a tea-cup full of water twice a-day, about two hours before dinner, and at bed time; it being observed to disagree most with the stomach in the morning fasting. And such is the difference between the morning and night, that almost every patient will require to take one-fourth, and some one-third more in the forenoon than in the evening, in order to enable them to bear the dose with equal convenience. The common dose just mentioned, relates only to adults of an ordinary constitution; for it deserves particular notice, that between constitutions which are nervous and irritable, and those which are very robust or torpid, or long accustomed to the use of tobacco, the dose will admit of very great and surprising alterations.

As an expectorant, in asthmatic cases, unattended with inflammatory symptoms, this medicine has frequently afforded relief. In cases of tetanus, or lock-jaw, injections of tobacco infusion, says Dr. Mease, have been used with success. They not only produce evacuations from the bowels, which are generally obstinately constipated, but tend to a relaxation of the violent spasms so peculiar to this disease. On this account, he suggests the propriety of giving it in the dreadful disease produced by the bite of a mad dog.

Besides the internal use of tobacco in the above diseases, it is likewise commended for its virtues externally employed. In the tooth-ach, a piece of lint moistened with the expressed juice of tobacco, has often acted as a charm in mitigating the pain. In obstinate ulcers, an ointment, or the dried leaves of tobacco, steeped in water, and applied to the part affected, have been attended with beneficial effects, after the usual remedies had failed. In the itch, and obstinate cases of cutaneous eruptions, the tobacco infusion, as a wash, applied two or three times a-day, seldom fails of effecting a radical cure. In that detestable distemper, called lousy evil, to which many children are subject, though from neglect of cleanliness, adults are sometimes afflicted with it, the infusion has effected a radical cure, in several instances, after preparations of mercury, and other applications, had failed. It will be found equally destructive to crab-lice, if applied two or three times a-day to the parts which they infest.

In cases of worms, tobacco externally applied is deserving the highest estimation. Professor Barton states, that the leaves pounded with vinegar, and applied in the shape of poultice to the region of the stomach and abdomen, have often discharged worms, after powerful anthelminthics had been exhibited internally in vain. We ought not to be surprised, says he, at this effect of the tobacco, since we know that the same vegetable applied externally, is often efficacious in inducing vomiting. Accordingly, says he, I have for some years been in the habit of applying tobacco leaves to the region of the stomach of persons who have swallowed large quantites of opium, and other similar articles, with a view of destroying themselves. It is well known, that in these cases the stomach is often extremely inirritable, insomuch that the most powerful emetics have little effect in rousing that organ into action. Here, as an auxiliary at least, the tobacco, in the manner I have mentioned, is certainly very useful and in many instances ought not to be neglected.

In further testimony of the efficacy of tobacco externally applied, in the most formidable diseases, I cannot forbear inserting at length, a letter addressed to the Editors of the Medical Museum, by a gentleman of distinguished medical attainments and surgical knowledge. Preceding this letter, is a minute detail of the case, related by an Italian physician, of a young woman, long afflicted with an abdominal swelling, producing violent convulsions, which, after having baffled the most efficacious means, was radically cured by Dr. Cutbush, senior physician of the American Marine Hospital, at Syracuse, in the year 1805.

"Sir—In consequence of the earnest solicitations of the parents of the young woman, whose case is above stated by one of her physicians, she was brought to my house in Syracuse to be examined. I received from herself and parents a history of her case, which corresponded very nearly with the above statement. Her parents informed me they had consulted thirty-three physicians and surgeons of Naples, and different parts of Sicily, without receiving any advantage. Some were of opinion that the swelling was owing to a collection of water in the uterus; others in the ovaria; others, that it was an enlarged liver; finally, two or three were strongly impressed with the idea, that it was an *extra-uterine fœtus*, which produced all the distressing symptoms above stated. On examination, I found a very large swelling, extending from the epigastrium in a diagonal direction to the anterior spinous process of the right ilium. The tumour had a number of inequalities on its surface; no fluctuations could be felt; she could not bear it pressed without suffering great pain. I must confess I did not give any decisive opinion in the case, it being perfectly new to me, and especially after the numerous contradictory opinions and practice of the first physicians of Naples and Sicily had failed in giving relief. She had been twice under the liberal use of mercury in Naples and Syracuse; in the latter place, by the direction of a surgeon belonging to Lord Nelson's squadron, when his lordship was there in 1798, without beneficial effect. From this history and examination, I entertained no hope of relieving her, but the solemn entreaties of her parents determined me to make trial of a remedy, which I had found useful in discussing obstinate tumours, and which finally terminated a disease that had been the source of great distress to the unfortunate female, and which, doubtless proved the disease to have been an hydropic affection of the uterus, or right fallopian tube, though no undulation could be discovered. I directed the leaves of the nicotiana, recently collected, to be stew-stewed in vinegar, and applied to the abdominal swelling. The first application produced nausea, vomiting, vertigo, great depression of muscular strength, copious perspiration, and a loose state of the bowels. Her pulse became very slow. In consequence of the violence of the above symptoms, it was not long continued; but on the succeeding day, it was repeated morning and evening, and produced all the above symptoms, but in a less degree attended with an immoderate flow of water from the vagina. The application was continued twice a-day for one week, when its effects on the system were less powerful; but I was informed, with the most rapturous expressions, that the tumour had diminished very much. The day following a priest was despatched to inform me, that the water was continually running from her as she walked her room. The remedy was continued about twenty days, but the swelling disappeared entirely before the fourteenth. No medicine was given, excepting a small quantity of opium or wine during the day. When the application of the tobacco was omitted, her abdomen was perfectly soft, and she could bear it pressed without pain. She was occasionally attacked with syncope, and complained of a want of appetite; I advised a bandage to be applied around her body, a course of tonic medicines, a generous diet to be gradually increased, equitation, (riding) and cheerful company. I saw her in October, 1805; she informed me that all the functions of her body were natural; her countenance was florid and cheerful.—April 1, 1806, I was informed she remained in good health.

"It is difficult to account for the modus operandi of tobacco in this case, unless the violent commotion, which it excited in the system, ruptured the cyst which probably contained the water. I conceive the external application of tobacco, as a remedy in many diseases, demands more attention from physicians than it has generally received. In obstinate constipation of the bowels, I have applied tobacco stewed in vinegar or water, with the greatest success; even after powerful cathartics, enemata of different kinds, injections of tobacco smoke, or the infusion of the plant have failed; and conceive it preferable in many cases of ascites, to the common mode of administering it internally in the form of tincture or infusion.

"I am, Sir, with esteem, yours,
"EDWARD CUTBUSH."

Happy if this plant "of many virtues" could always be exerted to beneficent purposes, and for which, no doubt, it was intended by the all-wise and benevolent Creator: but, alas! we are constrained to deplore not only the idle and expensive, but too often fatal abuse of it, by snuffing, chewing, and smoking, practices which cannot be too severely censured, especially in young persons, and those of weak digestion, consumptive or delicate habits. When used in either of those forms, by persons unaccustomed to its use, it will in small quantities produce stupor, giddiness, and vomiting: but like spirits, opium, and other narcotics, the use of it may be introduced by degrees, so that its peculiar effects, even from large quantities employed, seldom appear.

TOE ITCH. See *Moorwort Broad-leaved.*

TOOTHACH-TREE. See *Prickly Ash.*

TOUCHWOOD, *Boletus Igniarius*—Called also spunk. It is a spungy substance, growing on the white oak, pine, and hickory trees, generally used for catching fire with flint and steel. The heart of that which grows on the oak reduced to a powder, and applied to violent hemorrhages from wounds is said to be an excellent application to stop the bleeding.

TREFOIL, WATER, *Menianthes*—Grows about twelve inches high, in marshes, swamps, and wet meadows. It bears many elegant flowers, in a spike, which are sometimes white but commonly rose-coloured on the outside, and in the inside finely fringed; the leaves are three together, resembling our garden beans.

A drachm of the powdered leaves is said to operate up and down. An infusion of the leaves, two handfuls to a quart of boiling water, in doses of a tea cupful two or three times a-day, is esteemed a useful medicine in chronic rheumatism, in scorbutic complaints, and in all impurities of the blood.

TULIP-BEARING POPLAR. See *Poplar, White.*

TURMERIC. See *Bloodroot.*

UNICORN ROOT, *Aletris Farinasa*—Grows in meadows, and on the sides of mountains, about six or seven inches high; leaves spear-shaped, lying on the ground, and are green all the winter. The flowers grow on the stalk from the ground, which hang down at the top when fully blown; the root is whitish, full of small fibres, about the thickness of the end of the little finger, and crooked at the end.

The powdered root, in doses from a half to a tea spoonful, is said to afford relief in hysteric and flatulent or wind colic. A large handful of the root steeped in a quart of spirits, in doses of a wine glassful three times a-day, is highly esteemed by some as a valuable remedy in chronic rheumatism.

VALERIAN, WILD, *Valeriana Officinalis*—Grows abundantly in the vicinity of the Ohio river. It rises two or three feet high—the leaves in pairs, large, hairy, and of a dusky green colour—flowers stand in large tufts on the top of the branches, of a pale whitish-red colour.

The root, which is the part used in medicine, consists of a number of slender fibres, matted together, and attached to one head, of a brown colour, having a strong and unpleasant smell. Valerian has long been recommended by the most learned physicians as a medicine of great use in nervous disorders; and is particularly serviceable in hysteric cases, as well as in epilepsy, proceeding from a debility of the nervous system. According to Dr. Withering, it is an excellent medicine in cases of habitual costiveness. It should be given in doses from one to two tea cupfuls or more, in powder, three times a-day. It seems most useful when given in substance, and in large doses.

VINE, GRAPE, *Vitis Vinifera.*—Several species of this valuable shrub grow in the United States. The success which has attended the attempts to cultivate foreign and native grapes, sufficiently prove that our climate is perfectly congenial to the cultivation of the vine, and, that with very little attention, we might supply ourselves abundantly with cheap and wholesome wines.

Wine certainly is most excellent to prevent, as well as to cure, diseases. A prudent use of it, when genuine, I can say, from my own experience and observation, admirably conduces to health. It will be found particularly beneficial to the weak and aged, and to those who are exposed to a warm and moist air, or to a corrupted one. It exhilarates the spirits, quickens the circulation, promotes digestion, invigorates both the body and mental faculties, and thereby renders persons less susceptible to disease.

As a medicine, *wine* is a most grateful and valuable cordial in languors and debility, in which it is found to raise the pulse, support the strength, promote perspiration, and resist putrefaction. Hence we cannot appreciate too highly this reviving liquor, which justly merits the title of "donum Dei," gift of God. Were we to have less recourse to ardent spirits, and instead of continuing in those abominable practices of drinking before dinner, to take a few glasses of wine after dinner, we should find "our account" in it. During my long residence in Savannah, and exposed as I was alternately by my professional pursuits, to the scorching sun and chilling night air, I was never attacked with the prevailing fever incident to that climate, which I ascribe almost entirely to the daily use of the purest and best wine. In further corroboration of this fact, I will with candour state, that, when from unforeseen reverses of fortune, I was induced to remove to the more healthy situation, as I thought, of Washington, not a season has elapsed, but some one or other of my family has suffered severely with the bilious or nervous fever, which I cannot but ascribe, in a great measure, to our not drinking such good wine as we were accustomed to at the southward.

There are many persons in good circumstances, who object to the daily use of wine, as being too expensive. To such I would recommend it as economy. Besides the very great satisfaction which would naturally flow from having a healthy family, money is often saved by a prudent use of it. To illustrate this, it is only necessary to state, that several families at the southward, who were in the habit of paying annually large accounts for medical attendance, inquired of me how it was, that myself and family enjoyed such perfect health, while they were sickly. I remarked, that it was principally owing to drinking good wine, and assured them, though against my interest, if they would but pursue my plan, they also would enjoy good health. Some of them adopted my plan, which carried conviction with it; for on the following year, and afterwards, they enjoyed much better health, were enabled to attend to their business, and found the expense of the wine saved in their physician's bill.

Others again object to the habitual use of wine, as not congenial to their constitution, observing that whenever they entertained, or dined with, their friends, they were either induced from politeness or persuasion, to drink as the rest of the company,* from which their heads were uniformly affected, and they always felt disagreeable on the following day. This objection is at once refuted, by simply stating, it is my wish to impress on my readers the *use* but not the *abuse* of wine, which no man more heartily than myself abhors, especially in *young persons*, whose readiness to take glass for glass with their elders, is to me one of the most lamentable spectacles in nature. The excessive use of this stimulant, as well as every other, is most certainly injurious to the system, and ought, therefore, to be carefully guarded against by every rational person.

It deserves also to be noticed, that the same quantity of wine which would produce intoxication in one person, would have little or no effect on another; and there is also a wide difference between taking it on an empty stomach and on a full one. One glass, taken an hour or two before dinner, will affect the head, in most cases, more than a pint after dinner. In like manner, a half pint of adulterated or impure wine, will produce unpleasant sensations, when a pint of genuine Madeira will have no other than the pleasing effect of invigorating the constitution. The apprehension which some persons entertain, that children, early accustomed to wine, will be apt to become drunkards, is without the smallest foundation whatever. On the contrary, it is a lamentable truth, that we daily see persons, who were restrained in the early period of their lives, from drinking wine, toddy, or table drink, in the presence of their parents, become perfect sots after they arrived at the age of manhood. It is one of the greatest commendations of wine, that we never see those who daily indulge the use of it become drunkards. This is verified, not only in France, but in many parts of our Union. In Charleston, Savannah, and Augusta, the inhabitants generally make use of wine; the consequence of which is, they are sober, discreet, and, notwithstanding the climate, are healthy. It is a rare thing indeed to see a drunkard of any description in the streets of those cities. Whether it be owing to drinking less of ardent spirits, or a better police, I will not pretend to say; but it is the fact, and would that I could, with equal propriety, make the same remarks of the metropolis of the United States, where drunkenness, among the lower class and negroes, reigns triumphant, throwing open, as it were, the flood-gates of every species of vice.

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* The following anecdote will at once show the absurdity of pressing our friends to drink more wine than their appetites crave. A foreigner was invited to a party, consisting, as he was told, of English philosophers, of whom he conceived a great deal. After a very plenteous dinner, the cloth was cleared, and the bottles were placed on the table. He was pressed after five glasses to drink on, but the stranger persisted in assuring the company, he felt no drought. These philosophers began then to be angry, and the foreigner rang the bell, and insisted on another course, for they ought as much to eat, as he to drink, against inclination.

> "Vice is a monster of so frightful mien,
> As, to be hated, needs but to be seen;
> Yet seen too oft, familiar with her face,
> We first endure, then pity, then embrace."
>
> POPE.

It is also worthy of remark, that among the genteel circles in Charleston, Savannah, and Augusta, you will hardly meet with an instance of a gentleman drinking any thing before dinner, or pressing his friends to take more wine after dinner than they feel an inclination for; however, this is only what might be expected of those not excelled by any society on earth, either for polished manners or true hospitality. "Experientia docet," experience teaches, is my motto, and as I speak from this alone, I feel conscious of the rectitude of my heart, in earnestly recommending to my fellow-citizens, both old and young, the daily and prudent use of genuine wine, at least during the sickly season, and in unhealthy situations, without any fear whatever of becoming sots. That the tenderest infant may be benefitted by it, I am convinced from my own practical observations; but if higher authority be required, I will conclude with the following sentiment of the late Professor Rush.

It is remarkable, says he, that the children of persons in easy circumstances, who sip occasionally with their parents, the remains of a glass of wine after dinner, are much less subject to disease, than the children of poor people, who are without the benefit of that article of diet.

Having said so much in praise of the generous juice of the grape, and considering it, as I sincerely do, one of the choicest medicines in the Materia Medica, I cannot do otherwise than present my readers with the following most approved method for making American wines, taken from the *Domestic Encyclopedia*, as well as the mode of detecting *adulterated wines.*

Grapes must be fully ripe before they are gathered; gather them in a fair day, when they are perfectly dry; and take away all the rotten and unripe grapes, for they spoil the wine. If your vintage be large, and you gather more grapes than you can mash and press out in one day, let them be gathered without bruising, for bruised grapes soon attract an unsavoury taste, and hurt the wine; however, if they are mashed the same day they are gathered, the bruising will do no hurt.

Chaptal advises to cut off the tails of grapes very short with a pair of scissors, and to choose none but sound grapes, and those clusters which are best exposed, rejecting those which have been sheltered, and near the ground, and to prefer those which ripen at the bottom of the vines. They are then to be put into small baskets to prevent the loss of juice, by the superincumbent weight; and when full they ought to be put in carts, or on the backs of men or horses.

I would advise the gathering of them to be directed by some grave discreet person; for as this work is done generally by servants and children, it is made matter of pastime and frolic, and many grapes are torn off, and either bruised or scattered on the ground, to the no small damage of the owner, both in the loss of fruit and in hurting the wine. These things should be impressed on the minds of the gatherers before they begin, that every thing may be done regularly and in order, by which means more work will be done, and to much better purpose.

If white frosts happen before some of your grapes are fully ripe, let them still hang on the vines, and they will grow ripe, rich, and high flavoured; but they must be gathered before the weather be so hard as to freeze the grapes, for that will spoil them: the light frosts that only kill the leaves do not hurt the fruit, unless it be such as are late ripe; these should be carefully covered from all frosts, they should grow against walls or board fences fronting the south or south-east, and at night be covered with mats or frames thatched with straw, which should be so contrived as to be set up to cover the fruit or let down at pleasure.

As the wine made from black grapes has a different management from that made of white grapes, I shall begin with the white; these then must be gathered, as I mentioned before, in a fair day, when the grapes are perfectly dry; and both the rotten and unripe grapes carefully plucked off from every bunch; the clusters are then thrown into the mash vat, and two or three men, according to the quantity, having washed their feet and legs very clean in bran and water, get into the vat and trample and mash the grapes thoroughly, so that none escape.

Chaptal says, as a general rule, that the grapes must be equally pressed, to insure a uniform fermentation, and the vat filled in 24 hours, to avoid the inconvenience and imperfections arising from a successive series of fermentations, and when unexpected rain suspends the collection of the grapes, the juice of those already collected and placed in the vat, must ferment separately.

The first and second pressing being mixed together, is put into hogsheads, and filled within four inches of the bung, that it may have room to work and ferment, the casks placed in some warm room or dry cellar. Then having a small spile fixed in the middle of the head of the cask, the third or fourth day, draw a little of the wine in a glass, and if it be pretty fine, draw it off immediately into a clean dry well-scented cask, the larger the better, so you have wine enough to fill it, which you must do within two inches of the bung, and stop it close, leaving only the vent hole open for a second fermentation; after a few days it will work a second time, but not so much as at the first; if your wine be strong and good, which you may know by the age of your vineyard, and by the goodness of the seasons, it will be best to leave the bung hole open for this second working; the wine will be the better, for strong wines require a greater fermentation than weak wines; and the stopping of the bung-hole checks the working, and prevents weak wines from spending themselves too much; on the contrary, if strong wines have not a thorough working, they are apt to grow thick and ropy; by this you may form a proper judgment what degree of fermentation is proper for the wine that is under working, and govern yourself accordingly. Three or four days after the second fermentation begins, carefully watch your wines every day, again try them in a glass, and if they be pretty fine, prepare a cask sweet and good, burn a good large brimstone match in it, and as soon as the match is burnt out, whilst the cask is full of smoke, draw off the wine into it; now fill up your cask to the brim, and bung it up tight, and stop the vent-hole; the smoke of the brimstone will hinder any further fermentation; and this is called stunning or sulphuring; then make a mortar of clay, and horse dung, mixed up with strong flaxseed jelly, covering the bung and vent-hole close with it, let it stand till it is fit for use. When you first rack off, if you have any old wine that is rich and good, of the same kind or colour, put four or six gallons of it and two gallons of good brandy, into your cask; this quantity is sufficient for an English hogshead, and then rack off your wine into it for the first time; this will greatly strengthen and preserve it.

When wine is in fermentation, all the gross parts are thrown up to the top of the cask or vessel that it ferments in, and there meeting the air, they contract a harshness. *If then they are suffered to pass down through the body of the wine, which they certainly* *will do as soon as the fermentation is over*, they will communicate those evil qualities to the wine. For this reason, draw off your wine both times before the fermentation be quite over.— These *general* rules are of great consequence.

I now pass on to the making of red wine from the black grapes. Red wines have a different management from the white; the whole of one or even two days treading or mashing, where the vintage is great, is thrown into a large vat, the must, stalks, skins and all, and stands in some warm dry place or cellar. The vat is covered close with sheets or blankets, or both, and thus it remains according to custom, from four to seven or even ten days, according to the coldness or heat of the weather. This is done to obtain a strong fermentation, in order to give a deeper colour to the wine; and this is the only end proposed by it; the manager of this work visits the vat twice a-day, and in a glass views the colour of the wine, and tastes it; if the tincture be not deep enough to his mind, he knows by the taste of the wine, whether it will stand a longer fermentation; if it will not, he contents himself with the colour it has, and draws and presses it off, and fills it into casks, leaving about two inches from the bung, for a second fermentation. When the second fermentation is over, which generally happens in four or five days, he draws it off into clean well-scented casks, and adds to it six gallons of good old wine and two gallons of brandy to an English hogshead, which contains from 60 to 63 gallons. Where the same kind of wine is not to be had, he makes use of port wine. He then fills the cask quite full, and bungs it up tight, leaving only the vent hole open to let out the generated air. Note: When I say, where the same kind of wine is not to be had, he makes use of Portugal wines, it is mentioned for our practice, not that the French make use of such wines, for they always have wines enough of their own of the same kind.

Besides the main pulp or core of the grape, which is white in black grapes as well as others, there sticks to the inside of the skin, a considerable body of rich pulp, of a deeper dye in some than in others. This pulp gives the colour to the grape: this same pulp also gives the colour to the wine, for *the same grape is capable of making white wine as well as red wine*; if the main core which is first trod out, be only used, the wine will be white;

but if the red pulp be mixed with it, it makes it of a rich purple colour; as this is a clear case, the great point of improvement is, to dissolve or extract this rich pulp without injuring the wine.—That the present method is the best and most effectual to that purpose, I can by no means think; the violent fermentation through which the wine is made to pass, in order to procure the tincture, must exhaust the spirits in a very great degree, and leave the body in a weak and languid state, and subject it to harshness, to turn meagre or vapid in a short time; I think I have reason to conclude, that if the husks or skins, after four days lying in the mark, were taken out, and thrown into the mash vat, and trod over again, and especially if some of the *must*, or rather wine, be now and then thrown over the husks, in order to wash away the pulp, that a full tincture may be obtained, without torturing the wine, as the present manner is, and without running so great a risk of spoiling it.

Another method, by Joseph Cooper, Esq. of Gloucester county, New-Jersey.—I put a quantity of the comb from which the honey had been drained, into a tub, and added a barrel of cider, immediately from the press: this mixture was well stirred, and left for one night. It was then strained before a fermentation took place; and honey was added till the strength of the liquor was sufficient to bear an egg. It was then put into a barrel; and after the fermentation commenced, the cask was filled every day, for three or four days, that the filth might work out at the bung hole. When the fermentation moderated, I put the bung in loosely, lest stopping it tight might cause the cask to burst. At the end of five or six weeks, the liquor was drawn off into a tub, and the whites of eight eggs, well beat up, with a pint of clean sand, were put into it: I then added a gallon of cider spirit; and after mixing the whole well together, I returned it into the cask, which was well cleansed, bunged it tight, and placed it in a proper situation for racking off, when fine. In the month of April following, I drew it off into kegs, for use, and found it equal, in my opinion, to almost any foreign wine: in the opinion of many judges, it was superior.

This success has induced me to repeat the experiment for three years; and I am persuaded, that by using clean honey instead of the comb, as above described, such an improvement might be made, as would enable the citizens of the United States to supply themselves with a truly federal and wholesome wine, which would not cost a quarter of a dollar per gallon, were all the ingredients procured at the market price; and would have this peculiar advantage over every other wine, hitherto attempted in this country, that it contains no foreign mixture, but is made from ingredients produced on our own farms.

Adulterated Wines.—Wines may be adulterated by a variety of substances. The object proposed to be accomplished by this fraud, is to mask some of their defects, and to give them colour, odour, or strength. Among the substances employed, there are some, the use of which is attended with no danger; others on the contrary are more or less poisonous, and cannot be swallowed without giving rise to serious accidents, which may often be followed by death. This consideration has induced us to state the methods whereby it may be determined, whether the wine has been adulterated.

Sugar of lead, *cerusse*, and still more frequently *litharge*, are mixed with acid or sharp tasted wines, in order to render them less so, and these substances do in fact give them a sweet taste. Of all frauds this is the most dangerous.

White wines, adulterated by preparations of lead, offer, independently of their saccharine astringent taste, many properties by which we may detect them. They redden but slightly the tincture of litmus, because the acid they naturally contain is saturated by the oxide of lead. Sulphuric acid (oil of vitriol) and the sulphates, (or salts formed by the union of sulphuric acid,) such as the sulphate of soda, (Glauber's salts,) sulphate of magnesia, (Epsom salts,) dissolved in pure water, and mixed with these wines, render them thick and muddy; in a short time a white precipitate is found at the bottom of the vessel in which the experiment is made. The deposit does not disappear upon the addition of water. Muriatic acid and the muriates, as the muriate of soda, (common salt,) when dissolved in pure water, and added to adulterated wine, also occasion a heavy white precipitate, which may be dissolved in twenty-five or thirty times its weight of water. The sub-carbonates of soda, potash, and ammonia, act in the same manner. The white precipitate they throw down is insoluble in water, but is dissolved in a very singular manner by pure nitric acid. The chromic acid, and the cromate of potash, occasions a precipitate of a very fine canary yellow colour. Sulphuretted hydrogen, and the hydro-sulphates, as liver of sulphur, turn white wines sophisticated with lead of a black colour, and at the end of a few minutes throw down a black deposit.— If we collect upon a filter, and dry the precipitates obtained by the means just indicated, and if, after having mixed them with powdered charcoal and caustic potash, we expose them in a crucible to a red heat, during half an hour, we obtain a metallic button easy to be known; first, by its deep blue colour; second, by the facility of marking it with the nail; third, by the quickness with which it is dissolved in aqua-fortis, forming thereby a liquid salt of a sweetish taste, and having the property of being precipitated of a white colour by the sulphates, the hydro-chlorates, and the carbonates. Pure potash, soda, and the volatile alkali mixed with these wines, cause a white precipitate. Evaporated in a capsule at a boiling heat, they leave a deposit, which being heated to redness with powdered charcoal, furnishes, at the end of thirty or forty minutes, metallic lead. This property is sufficient to prove the presence of lead in wines.

Red wines, when adulterated with the preparations of lead, are never of so deep a colour as before the adulteration; they are of a pale red. We may prove the existence of lead in red wines, by the aid of the substances directed to be used for white wines. It is, however, necessary to observe, that ammonia causes a dirty green-coloured precipitate, when mixed with red wines which contain lead; on the contrary, in white wines the precipitate is white. That the hydro-sulphates may lead us into error, if we confine ourselves to the superficial examination of their action. That these substances detect the presence of lead in *red* wines, by throwing down a black precipitate, is true; but the same substances, when mixed with the greater parts of red wines, produce the same effect; they become dark, and finish, by deposing flakes of a deep violet colour. It is necessary then, when we wish to decide upon the test furnished by the hydro-sulphates, to add that, the black precipitate they form, when mixed with *red* wines, indicates the presence of lead, if, after having been dried upon a filter, and calcined with potash and charcoal, it leaves a button of metallic lead.

Wines adulterated by Alum.—The object of this adulteration is to render the wines redder and less changeable; and to give them an astringent taste. The danger of this fraud is generally known, digestion becomes painful, vomiting from time to time, obstruction of the bowels, and piles, are the result of drinking wines thus adulterated. Of all the methods proposed to discover the presence of alum in wine, the following appears to merit the preference. By evaporating several pints of wine we obtain a reddish mass, composed of alum, and the colouring matter, and tartar, which make a part of the wine. This mass being dissolved in a large quantity of water and made to boil with some charcoal of the linden-tree*, a liquid almost without colour is obtained. If the liquid be filtered, and then evaporated by a gentle heat, until a thin crust is formed upon the surface, and set in a cool place, the tartar will crystallize and the supernatant fluid will hold the alum in solution. This fluid ought to have a sweetish astringent taste, and throw down a white precipitate, upon the addition of ammonia, or caustic potash; that formed by this last body ought to be soluble by an excess of potash. A solution of barytes, its acetate or muriate, ought to render it thick and occasion a white precipitate, insoluble in water and nitric acid.

Wines adulterated with Chalk.—Some persons are in the habit of adding chalk or lime to red or white wine, having a disagreeable acidity, with a view of saturating the acetic, or tartaric acid, and thus by the combination of the chalk or lime with the acid, destroy their sharp taste. Wines treated in this manner are really much safer, but they may give rise to disagreeable symptoms if they contain too great a quantity of the acetate of lime. This fraud may be discovered by the following means:—Evaporate a quantity of the wine in an open vessel, or if the spirit be desired, let it be distilled: when the fluid is reduced to the consistence of a sirup, add a few ounces of distilled water, agitate the mixture for ten or twelve minutes and filter the liquid, which will be found to contain acetate of lime, formed by the acetic acid of the wine, and the lime or chalk which has been added. The tartar which the wine contained will not be dissolved, but will remain upon the filter.

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*Or any fresh-made charcoal.

VIOLET, RATTLE SNAKE—Grows about four inches high, on the banks of rivers, and in pine woods; leaves grow in a cluster from a stalk, oval-shaped, fleshy, and full of small veins; flowers of a pale blue colour.

An infusion of this plant, a handful to a quart of boiling water, taken in doses of a tea-cupful three or four times a-day, and some of the green leaves bruised, and applied twice or thrice a-day to scrofulous tumours, or king's evil, is said to be an infallible remedy.

VIOLET, SWEET, *Viola Odorata*—Is cultivated in our gardens; leaves heart-shaped, notched, flowers deep purple, odoriferous.

A tea-spoonful of the powdered herb is celebrated as a mild laxative. To children, a strong infusion or decoction formed into sirup with molasses, honey, or sugar, in doses of a wine-glassful, will be more acceptable.

VIRGIN'S BOWER—Grows about two feet high, near ponds and low pastures; leaves opposite in pairs, and terminated by an odd one; the flowers somewhat resemble the appearance of feather tails.

A small handful of the leaves infused in a quart of boiling water, and given in doses of a gill three times a-day, is said to be very beneficial in venereal sores, or cutaneous eruptions of long standing, particularly if the sores are washed with the same. The bruised green leaves have been applied to ulcers, as an escharotic, to destroy fungous or proud flesh.

VIRGINIA, OR BLACK SNAKE ROOT, *Serpentaria Virginiana*—Grows in rich woodlands, from seven to nine inches high, leaves heart-shaped, flowers of a purplish brown colour.

The root is composed of a number of strings, or fibres, issuing from one head, and matted together, of a brownish colour on the outside, and pale or yellowish within.

It has an aromatic smell, and a warm bitterish pungent taste. It promotes perspiration, raises the pulse, and resists putrefaction. Hence it is especially adapted to the low and advanced stage of typhus or nervous fever. It may be given in the form of infusion or tea, a handful to a quart of boiling water, in doses of a tea-cupful, or in powder, from ten to thirty grains every two or three hours. Conjoined with the Peruvian bark, or any of its substitutes, it is an admirable remedy in obstinate cases of the ague and fever, and other disorders of general weakness. In cold phlegmatic habits, it has also been exhibited in the form of tincture, and when united with double the quantity of dogwood bark, or berries, it affords a good bitter. Professor Barton observes, that a strong decoction of the root was used with great benefit as a gargle in a putrid sore throat, which prevailed in New-Jersey.

In that species of pleurisy, which is properly enough designated by the epithet bilious, professor Chapman states, he has repeatedly had occasion to recur to the serpentaria, and always with more or less utility. This bilious pleurisy he considers as having all the characteristics of pneumonic inflammation, with the addition of some of the symptoms incident to autumnal fever, such as headach, great gastric distress, and almost always violent vomitings of bile. It differs also, from ordinary pleurisy, in having less activity of inflammation, and consequently in not bearing the same extent of depletion. The system, indeed, will often be very evidently depressed by one or two bleedings. In this case the practice which has been commonly pursued is, after the removal of a comparatively small portion of blood, and the thorough evacuation of the alimentary canal, to administer very freely draughts of the infusion of the serpentaria, in order to excite perspiration.

Externally applied, the decoction has been found to cure the itch.

WAKE ROBIN. See *Cuckow Pint.*

WALNUT, WHITE, *Juglans Alba*—Affords one of the finest cathartic medicines in the whole American Materia Medica.—The inner bark, boiled for several hours, then strained and re-boiled to the consistence of thick honey, forms the best preparation of this invaluable medicine. A common sized pill or two at going to bed, is admirable to remove those costive habits, which occasion head achs, loaded stomachs, colics, &c. And in increased doses, say double quantities, it will be found a sovereign medicine in dysentery, bilious fever, and all other complaints requiring aperient medicines, more especially if combined with equal quantities of calomel. I cannot quit this extract without most heartily recommending it to every American family to keep it constantly by them.

The bark of the root is excellent to raise a blister, therefore may be substituted for Spanish flies.

WATER CRESSES—Grow in running brooks and wet ditches.

The green herb, eaten as a vegetable, and the expressed juice in doses of a table spoonful two or three times a-day, is an effectual remedy for the scurvy.

WATER TREFOIL. See *Trefoil, Water.*

WHITE BRYONY—Grows in low meadows and swamps; the stems twist about bushes, and shoot out to a great extent; the leaves pointed, irregularly toothed, very large, diminishing gradually to the top; flowers of a yellow green, which produce a red berry; the root is white and large.

A very strong decoction of the root strained, and then simmered slowly by the fire, until it become of the consistence of honey, is said to be a good purgative medicine in doses from one to three tea-spoonfuls.

WHITE WOOD. See *Poplar.*

WILLOW, *Salix*—Professor Barton thinks that our willows possess nearly the same virtues that have been ascribed to those of Europe, and that they might be substituted for the Peruvian bark. The bark of the white willow, smooth willow, and crack willow, so called from the remarkable brittleness of its branches, collected when it abounds with sap, has been successfully employed in intermittent or ague and fever, in doses of one or two drachms. The broad-leaved willow is said to possess greater virtues than either of the above. This species may be distinguished by the shape of its leaves from all others, except the bay-leaved willow. The leaves of the latter are smooth and shining, of a deeper green, and have not the downy appearance on the under surface, which is so remarkable in this. It is found in woods and hedges, on hilly situations, and delights in cold clayey moist grounds.

A strong decoction of this bark resembles port wine in colour. It is astringent to the taste, and somewhat bitter. According to Dr. Wilkinson, it is a remedy of great efficacy in most cases where the Peruvian bark is indicated. He directs one ounce and a half (a handful) of the bark to be infused in one quart of water for six hours, then boil it over a gentle fire for a quarter of an hour, and strain for use. Of this, the ordinary dose is a wine glassful three or four times a-day. But in ague and fever, the dose may be repeated every third hour in the interval of the fit.

WINTERBERRY. See *Alder, Black.*

WINTERGREEN. See *Calico Tree.*

WOOD BETONY—Grows about a foot high in upland woods, and old pastures; the stem square and hairy, the leaves opposit and hairy, the flowers in spikes of a purple colour.

An infusion of the herb, a handful to a quart of boiling water, in doses of a tea cupful every two hours, is said to be serviceable in rheumatic or gouty affections.

WORMSEED. See *Jerusalem Oak.*

WORMWOOD. See *Mugwort.*

YARROW—Grows in dry pastures and along the sides of fences, about a foot high; leaves pointed, flowers white, tinged with a little purple beneath.

A handful of the tops of yarrow infused in a quart of boiling water, in doses of a tea-cupful three or four times a-day, is reputed to be a valuable medicine in the dysentery, bleeding piles, and restraining immoderate flow of the menses. A table-spoonful of the expressed juice taken twice a-day, and the herb bruised, or in the form of a poultice, is said to have cured a cancer of the breast. The green leaves pounded, and applied over a bruise, dissipates it in a few days.

DIRECTIONS

RESPECTING THE COLLECTION AND PRESERVATION OF VEGETABLE SUBSTANCES.

Herbs and leaves are to be gathered in dry weather, after the dew is off them, and are to be freed from decayed, withered, or foreign leaves. They are usually tied in bundles, and hung up in a shady, warm, and airy place, or spread upon the floor, and frequently turned. If very juicy, they are laid upon a sieve and dried by a gentle degree of artificial warmth. They should be dried in such quantities at a time that the process may be finished as quickly as possible; for by these means their powers are best preserved; the test of which is, the perfect preservation of their natural colour.

Flowers ought also to be collected in clear dry weather, after the dew is off, immediately after they have opened. They should also be dried nearly as leaves, but more quickly, and with more attention. As they must not be exposed to the sun, it is best done by a slight degree of artificial warmth.

Barks and woods should be collected when the most active part of the vegetables are concentrated in them, which happens in spring and in autumn. Spring is preferred for resinous barks, and Autumn for those that are gummy. Barks should be taken from young trees, and freed from decayed parts, and all impurities.

Seeds and fruits are to be gathered when ripe, but before they fall spontaneously.

Roots which are annual, should be collected before they shoot out their stalks or flowers. Those which are worm-eaten or decayed are to be rejected. The others are immediately to be cleaned with a brush and cold water, letting them lie in it as short a time as possible; and the fibres and little roots, when not essential, are to be cut away. Roots which consist principally of fibres, and have but a small top, may be immediately dried. If they be juicy, and not aromatic, this may be done by a moderate heat; but if aromatic, by simply exposing them, and frequently turning them in a current of cold dry air. If very thick and strong, they are to be split or cut into slices, and strung upon threads; if covered with a tough bark, they may be peeled fresh, and then dried. Such as lose their virtues by drying, or are directed to be preserved in a fresh state, are to be kept buried in dry sand.

The proper drying of vegetable substances is of the greatest importance. It is often directed to be done in the shade and slowly, that the volatile and active particles may not be dissipated by too great heat; but this is an error, for they always lose infinitely more by slow than by quick drying. When, on account of the colour, they cannot be exposed to the sun, and the warmth of the atmosphere is insufficient, they should be dried by an artificial warmth less than 100 degrees of Fahrenheit, and well exposed to a current of air. When perfectly dry and friable, they have little smell; but after being kept some time, they attract moisture from the air, and regain their proper odour.

THE NURSE'S GUIDE.

No radiant pearl, which crested fortune wears,
No gem, that twinkling hangs from beauty's ears,
Not the bright stars, which night's blue arch adorn,
Nor rising sun, that gilds the vernal morn,
Shine with such lustre as the tear that breaks
For other's woe, down virtue's manly cheeks.
Darwin.

Indigent Sick.—Having in my professional duties so often witnessed the most grievous sufferings of the sick for want of suitable nourishment, and this occurring too not unfrequently in respectable families who have been reduced in circumstances, I feel it my duty, since it is not foreign to the subject, to call the attention of those in affluence, throughout our numerous cities and extensive country, to extend the arm of charity to the indigent sick, in their respective neighbourhoods. While feasting in their own houses, let them listen to the voice of humanity, and not forget the "house of mourning," where the lone widow and her orphans pine in sick and starving solitude.

It is not easy to estimate the good which may be done to suffering humanity by beneficent acts of this kind.

What a *treat* to the sick, instead of coarse food, to have a comfortable bowl of soup, arrow root, sago, panado, or custard!—And what a *cordial*, to a person labouring under protracted disease, instead of simple water to have a glass of good porter, ale, cider, or wine, which nature craves in this exhausted state. It is a well known fact that a rarity sent unexpectedly has often been the means of recalling long lost appetite, and thereby rescuing from an untimely grave a valuable life. Indeed there cannot be a greater object of charitable commisseration than a person confined to the bed of sickness, without the means of obtaining suitable nourishment. Nor are the indigent alone the grateful receivers; for in the houses of the wealthy a real good sick cook is rarely met with; and many who possess all the goods of fortune have attributed the first return of health to an appetite excited by what is called good *kitchen physic.* How important an advantage in overcoming disease is a nutricious diet! Nor is this the only good to be derived from acts of charity, for we have frequently seen a fond mother denying herself the necessary quantity of food that she might the better provide for her sick children, reduce that strength upon which the welfare of her family essentially depends.

> In faith and hope the world will disagree,
> But all mankind's concern is charity;
> All must be false that thwart this one great end,
> And all of God, that bless mankind, or mend.
>
> POPE.

In the preliminary observations of this work [*See pages 45 and* 46] we stated facts illustrative of the important advantages resulting from good nursing and dieting. The frequent occurrence of fatal effects when this is neglected imperiously demands that I should present to my readers the most approved rules which ought to be understood by every nurse, as well as to exhibit the mode of preparing such aliments as are most proper for the sick; in order that the trammels of ignorance in nurses, if possible, may be broken, and simplicity of diet and general management become an increased object of our attention.

> But trust me, when you have done all this,
> Much will be missing still, and much will
> "Be amiss." MILTON.

DUTY OF A NURSE.—Before we proceed further on this subject, it may be necessary to observe, that none should be nurses unless they possess *honesty*, *sobriety*, and *fidelity*. The more equal and cheerful they are in their dispositions, they better, provided they keep at their proper distance, and never incommode the patient with idle chit chat, or any thing that can occasion sudden alarm. They ought to be expert in the execution of their office, yet without bustle or noise; the track being easily kept when once got into, and the objects to be attended to but few.

> "To watch the "afflicted" with anxious care,
> The lurking symptoms of disease detect,
> And with the aid of sweet nutritious food,
> Or potent herb, or kindly drug, to aid
> Oppressed nature in her arduous task
> Be thine!, and thine the grateful rich reward
> Of conscious duty done—a meed more fair
> Than all the laurels which bedeck the brow
> Of modern Cæsar."

The office of a nurse, however trifling it may appear, if well known and rightly performed, is unquestionably of great benefit to mankind. To prove this fact it is only necessary to appeal to every skilful Physician, whether, when the plan prescribed by him hath been punctually observed, he has not commonly seen the disease either yielding readily to the remedies, or terminating in its usual period, without any mysterious or difficult symptoms arising through the course of it. Whereas, on the contrary, when his plan hath been altered, as for instance, when the medicine hath not been taken at the appointed time; when improper diet has been given instead of that directed, when the air in the rooms and many other circumstances have been improperly attended to, whether he has not then known the disease to be either aggravated, or diverted from its course, often terminating fatally; when, if no such errors had been committed, there was the highest probability of the patient's recovery.

Air and Temperature.—It being a well known fact that the life of every animal depends as much on air as on diet; and its health also as much on the goodness of the former, as on that of the latter, care should be taken what sort of rooms we sleep in, but more especially so when confined by sickness.

It is a misfortune that the poor as well as the slaves are constrained from necessity to sleep in low dwellings, and many of them in the same room, by which due attention is not generally paid to cleanliness; hence the air becomes impure and extremely offensive. Others again accustom themselves, sick or well, to the curtains drawn. This is equally detrimental to health, for the air being thus confined, becomes contaminated, and so offensive as to be disagreeable to any one entering the room from the fresh air. How much more so then must this be the case in sickness, which tends greatly to destroy its purity.

In warm weather it is necessary to keep a window open day and night, during the whole course of the disease, but in this case the nurse must take care that the patient is not exposed to either a damp or violent current of air. Whenever a fire is required, it should be kept up, and regulated according to the nature of the disease, and state of the weather. The room being brought to a due heat should never be suffered to cool suddenly, for the air ought to be kept as temperate as possible.

When the general exhaustion is great, the temperature of the apartment should not by any means be permitted to be so low as to endanger an attack of chilliness, as in this case a rapid reduction of the animal heat may speedily be fatal, by sinking the heart's action. In some instances an exposure to the cold air, in getting up to the night-chair, has been the cause of a shivering fit, under which the patient died in a few hours; but death will rarely happen, if some warm stimulant be immediately administered internally, and sufficient warmth applied to the extreme parts of the body.

CHILLS AND FEVERS.—It is too prevailing a custom in the cold fit of an ague, or when the patient complains of chilliness, for the attendants to heap great loads of bed clothes which never fail to produce difficult or oppressed respiration. In such cases warmth should be restored by applying warm flannels to the stomach and abdomen, and the same or warm bricks to the feet.—Recourse should also be had to friction with a flesh brush or flannel on the extremities.

It is vulgarly imagined that it is absolutely necessary to promote perspiration, and under this absurd idea, heating and stimulating drinks are given by way of cordials which readily induce delirium or a more obstinate fever. The fact is this, when the pulse is quick and the body hot, sweat can only be induced by lessening the action of the pulse, and heat of the body. And this can only be accomplished by strict observation of a cooling regimen.

In some cases, it is necessary, that the sick person should be kept out of bed as much as possible; and placed so, as to face the current of air; the body being defended sufficiently by the clothing, to prevent any inconvenience being experienced. It should be recollected, however, as we have already noticed, that in the stage of collapse,or when the exhaustion is great,this practice is not admissible. But there is much less reason to fear this practice will be too frequently adopted; than that it will be neglected, in those cases in which it is recommended. For, too often, in this point, are the wishes of the physician opposed, and his directions disobeyed; the languor of the patient, and the unwillingness to be removed, with the prejudices against a practice so novel, forming, very often, almost insuperable obstacles. Indeed it is very difficult to persuade those, who have not witnessed the effects resulting from this mode of practice, that it is not necessary, for every person in a fever to be kept closely confined to his bed, under a load of bed-clothes and supplied with heating drinks. It frequently happens, therefore, that no sooner has a physician left the room, than the patient is supplied with warm liquors, the windows and curtains are closed, and the bed-clothes, which had been removed, are replaced. Such opposition to the directions of a physician, viewed in the most favourable light is highly censurable; being in a great measure, the effect of ignorance, it is all that prevents it from being really criminal.

Nurses should, therefore, be on their guard, and neither deviate themselves from the rules laid down, or permit any person at the expense of the patient's life to interfere with what might be considered their duty, otherwise their conscience will upbraid them as murderers.

It is to be hoped by means of this treatise, ignorance will no longer be a cloak for omissions, and that one uniform method will be attained in the management of the sick, which will unquestionably be of vast importance to mankind.

Cleanliness.—It is certainly of great moment to the sick to have their bed and bedding kept clean as possible, and their linen frequently changed that it may not become foul or offensive.—Such of the bed-clothes, as are not changed should, in diseases of a putrid nature, be exposed to a current of air, since, by their known capacity for retaining effluvia, they may become so loaded with contagious and putrid matter, as to prove infectious to the attendants, and perhaps to impede the recovery of the patient.

In summer it is much more healthy to sleep on mattersses than feather beds, which are apt to make persons become faint and languid. The best materials for making mattresses are, clean horse hair, Carolina moss properly cured, corn husks split, or straw.

When a bed is unsettled, or a patient's head uncomfortably low, or when his feet are pushed from under the bed-clothes, he should be raised in bed, and the bed, bolster, and covering shook up and smoothed.

The patient's face and hands are to be washed every morning. And when he is no longer able to assist himself, his face, breast, hands, and arms, must be frequently sponged with vinegar and water. The floor should be kept clean and occasionally sprinkled with vinegar, particularly before it is swept, and on no account should any thing the least offensive be suffered to remain in the room.

It is also the duty of the nurse to pay great attention to the state of the patient's mouth. When his tongue and gums, are covered with a brown or dark crust, she must wipe them with a bit of flannel moistened with salt and water, two or three times a-day; or if this cannot be accomplished she must put a thin slice of lemon, without the rind, in his mouth. The patient is often unable to swallow from the dry and shrivelled state of his tongue; in such cases, the nurse, before offering him drink, should put a teaspoonful of lemon juice and water, or vinegar sweetened, into his mouth, after which, the scum upon his tongue will become softened in a minute or two, and then he will drink with ease.

Delirium.—When during great derangement of mind a patient insists upon leaving his bed, the nurse must endeavour to calm him; or if that should fail, she may speak with authority, but she is not on any account to use forcible restraint. The nurse must wrap his legs in a blanket, put on his bed gown or cover his shoulders, and permit him to sit on his bed, or even to go to the fire, till the violence of his derangement shall abate. When indulged in this way, he will, in general, soon return to the bed of his own accord. In the putrid fever, delirium is one of the most constant and alarming symptoms, and the removal of it depends much upon the nurse or attendants. We have seen a temporary stop put to the patient's raving, by making him drink, or upon his discharging his urine or fæces: for being then unconscious of thirst and other natural wants, he is therefore ignorant of the means of satisfying them: and when he does so, he fancies he is about something else, which is the subject of his delirious thoughts. This observation leads to a material practical purpose; for it follows from it, that unremitting attention should be given to the patient's feelings, and all his possible wants, as those natural notices, and instinctive cravings, which occur in health, are now wanting, in consequence of the depraved state of sensation.

The following excellent passage will be found in Levant's Chapter on the Synochus Putris (Nervous Fever.) As soon as the delirium comes on, the pain subsides, or at least the patient does not complain of pain, or seem to feel any; but replies in a hurried manner, when asked how he does, that he is very well; according to the observation of a French physician "Quand le malade repond, je me porte bein, ce seul mot suffit, ill n'est pas plus a' lui." When the patient answers that he "is very well," this alone convinces me, says Dr. Cheyne of Dublin, that he is no longer himself. In all these cases, the patient endeavours to get out of bed, to sit up, or even to walk about from one room to another; but unhappily the attendants are solicitous to confine him to bed, and to load him with bed-clothes; nay, he is frequently kept struggling for two or three days together, with two strong people lying upon him continually. Now to prevent all this misery; I know no method equal to what is here recommended; namely, let the patient have his clothes put on, and be placed in an easy chair; let his head be shaven, washed with vinegar, and covered with a linen cap. When he is tired of the erect posture, let him lie along on a couch, or upon the bed, with his head high. Let his diet be cooling, and his body be kept open by clysters, repeated occasionally. Let this method be persisted in till his delirium goes off; or till the pulse subsides, and he seems exhausted; then perhaps he will begin to dose, or slumber on his chair, which will do him no harm, and when he is inclined to go into bed, let him lie down. By this method, adds Dr. C. I have recovered great numbers of persons, when I was suffered to conduct them in the hospital; and I do believe some have perished by an opposite treatment, that might have been saved.

Medicines.—Although it is admitted, the cure of diseases depends very much upon the right choice of medicines; yet, it cannot reasonably be expected that these will produce the desired effect unless they are punctually taken agreeably to the directions given.

It has oftentimes occurred, that when aperient powders containing calomel have been prescribed, and directions given that they should be administered in sirup or molasses, the physician, in making the necessary inquiry on the following day, has been told by the nurse that they had no effect upon the bowels. *How* was the medicine given? In tea, sir. Why was it not administered agreeably to instructions? Because the patient preferred taking it in a liquid, and I thought it would answer as well. By thus changing the vehicle, the calomel being heavier than the tea, was left at the bottom of the spoon, and as it was not swallowed could not of course have any purgative effect. In like manner, the patient or nurse frequently thwarts the intention of the physician by making use of the medicines prescribed, irregularly; so that if there is any particular action to be kept up on the system it is rendered abortive, and blame cast where it should not rest. It is not unusual for medicines, though ever so well adapted to the case, to excite nausea and retchings immediately after each dose is taken. Hence a prejudice arises directly against the medicines, which being taken for the cause, it is condemned and set aside. The consequence is, the disease becomes more aggravated. Cases may happen, wherein if but one medicine is neglected, it can never be administered again properly, and consequently the patient may either be lost, or greatly injured. It is therefore the duty of the nurse, when a physician prescribes in whom confidence can be placed, strictly to adhere to the curative process he selects, as without such attention Æsculapius himself might fail.

It commonly occurs, through the course of many diseases, particularly fevers, that the patient hath little or no inclination to eat, till nature has gained the victory. But this not being rightly understood by either him or his attendants, an outcry is made that he will never have an appetite, whilst he takes medicines. Hence the remedies are discontinued; yet the appetite doth not recover, nor does the case grow better, but rather worse. The reason is obvious, if they would but only observe, that as the disease is cured, the appetite in consequence will revive.

Again, it not unfrequently happens in diseases which are obstinate, requiring a long course of medicines, that the patient becomes impatient and discontinues the use of the remedies. And in such cases, it is too common, that the patient becomes prejudiced against his physician and mistrusts his ability wholly, though perhaps he has been conducted by him through the most difficult stages of his illness, and not uncommonly sends for another, who if not so honest as to undeceive him, enjoys the honour that was due to the former.

By those observations we do not mean to screen any unskilful or improper use that may be made of medicine, or to raise it into higher esteem than what it deserves; on the contrary, it will ever be found that *he who knows his business best, will make it his constant care to heal with fewest medicines; and will always be most ready to resign his patient to diet alone, so soon as he knows it can be done with safety.*

During a long spell of sickness it not unfrequently occurs, that *good natured friends* are in the habit of recommending *nostrums*, each on the supposition that their own is infallible. When the patients are credulous, as is too often the case in lingering diseases, they readily grasp at any relief, however monstrous the proposition may appear; the consequence is, that in nineteen cases out of twenty, the medicaments of which they are composed are utterly unfit for the disease, and consequently prove deleterious in their effects.

It too frequently occurs that insuperable difficulties of another kind arise. For, there are some persons bred up with strong prejudices, and an excessive like or dislike of certain things, and cannot easily be persuaded to comply with what is thought the most proper method of cure, namely, a particular regimen, bleeding, vomiting, &c. And thus their lives are often lost, or if they survive, the future period of their existence is rendered very miserable by some consequent disease remaining fixed in the constitution. Again, we often find, with respect to children who have been much indulged, when the physician ascertains the nature of the disease, and prescribes suitably to the case, he will very likely be told by the parents, if he expects any medicine to be gotten down, it must either be nicely flavoured, or absolutely without taste. Or should he advise topical bleeding by leeches, he will more than probably be told, however necessary their application may be, it is a remedy which must be declined, for the very sight of them would throw the child into convulsions.—And as to a blister, the infliction of this torture on such delicate skin could not be endured; for so soon as any pain from its action was produced, it would be directly torn off. Placed under such limitations, it cannot be expected, however capable and anxious the physician may be to procure relief to his patient, that much advantage can be obtained from his prescriptions. He therefore either declines his attendance, or acting within the bounds to which he is limited, he does little more than alleviate some of the more distressing symptoms, whilst he has the mortification to witness the almost uninterrupted progress of the disease.

LEECHES.—As these little animals are depended on for the removal of very dangerous diseases, and as they often seem capriciously determined to resist the endeavours made to cause them to adhere, it will be proper to give a few directions, by which their assistance may, with more certainty, be obtained.

This useful ally to the physician, it may be remarked, is as little fond of the taste of physic as the physician can be himself. The introducing a hand, to which any ill flavoured medicine adheres, into the water in which they are kept, will be often sufficient to deprive them of life; the application of a small quantity of any saline matter to their skin, immediately occasions the expulsion of the contents of their stomach; and what is most to our present purpose, the least medicament that has been applied, remaining on the skin, or even the accumulation of the matter of perspiration, will prevent them from fastening. The skin should, therefore, previous to their application, be very carefully cleansed from any foulness, and moistened with a little milk.

The best mode of applying them is by retaining them to the skin in a small wine-glass, or the bottom of a large pill box, when they will, in general, in a little time, fasten themselves to the skin. On their removal, the rejection of the blood they have drawn may be obtained by the application of salt externally; but here, for the sake of those to whom we are so much indebted, it may be necessary to remark, that a few grains of salt are sufficient for this purpose; and that covering them with it, as is sometimes done by nurses, generally destroys them. It sometimes happens, that the blood will continue to flow from the orifice made by a leech longer than is desirable; and, sometimes, children have been nearly lost from the inability of the attendants to suppress the discharge. In such cases, the blood should be washed off clean, and the point of the finger pressed moderately hard on the orifice, when the blood will cease to flow.—A small compress may then be applied to the wound, which may be retained by the point of the finger as long as the blood appears upon withdrawing the pressure; remembering, that no more blood need be suffered to flow, than is thought necessary; since all that is required to prevent it, is patiently to persevere in the necessary pressure.

It sometimes occurs, on the application of leeches to the fundament, in order to relieve the piles, that they get into the rectum. If that accident should happen, an injection of a solution of common salt is the proper remedy; but the animal is soon gorged, and then may be destroyed.

Clysters.—As the use of clysters is also of great importance in the cure of many diseases, and as nurses are not always conversant, even in this part of their office, it may be proper to give some directions relative to the administration of them, which may be done in the following manner: The bed being prepared with a sufficiency of clothing to keep it dry, the patient must be placed on the side across it, with the knees forward, and then covered decently; the clyster being likewise prepared, and brought to that moderate heat called milk warm, must be poured into the bladder and secured by tying the opening; which being done and the pipe anointed, the whole must be placed in the bed near to the patient. The nurse must now pass the point of her left forefinger, the nail being cut short, close to the anus, or a little within it, and then slide the pipe along this finger, till the greatest part of it is entirely introduced. In doing this, the pipe must be directed a little backwards, taking care not to push it against any part so as to cause pain. When thus introduced, its outer end must be held fast with one hand, whilst with the other she takes hold of the string, and pulls out the cork; which done, the bladder must be grasped with both hands, and the contents forced up, keeping the pipe in its place at the same time. When the clyster has been pressed out of the bladder, the pipe must be instantly withdrawn.

A large pewter syringe is more convenient to administer an injection; and some of them are so constructed that the patient may use it himself.

Diet.—In the cure of diseases, experience proves how much depends upon the choice and administration of diet. We see one series of disorders, wherein the appetite, either from a bad habit or some morbid effect, craves such things chiefly as have a tendency to heighten the disease. Another series, in which the whole fabric being fully engaged and struggling with the disease in order to conquer it, the stomach, till in that conflict nature gets the better, loathes every kind of aliment, except such as is fluid. And we see in the third class, the stomach not affected, but dispensing with all kinds of food. Yet these being taken indiscriminately, the disease is not only nursed, but the medicines usually the most efficacious in curing it, are rendered entirely ineffectual.

The nurse should, therefore, be extremely cautious how she deviates from the diet which has been prescribed, as fatal consequences may arise from what may seem to have been but a trifling variation.

The stomach must never be oppressed with much at a time, about half a pint being enough, and that should be repeated only as nature indicates. This will, generally, be known by the patient's desire or dislike of it. We say generally, for in some cases where there is great weakness, insensibility, or both, the patient may not be able to give such indication. And there are cases, especially fever that terminates badly, where the patient's thirst is insatiable. In either of these exigencies, the nurse must proceed with discretion; that is, in the former she must rouse the patient every hour or two, and give a cupful or half a pint of such drink as directed; and, in the latter, she must give drink more frequent, but small quantities at a time. But it should be observed that, whenever patients fall into a tranquil slumber, they should hardly ever be disturbed to give them drink or food until five or six hours shall have elapsed. Such a repose is most desirable, and will, sometimes, renovate nature, when her faculties had before seemed prostrate, beyond the power of recovery.

It is a vulgar error, and a very common one too, that a sick person is to be supported by rich broths, by pastry, or by solids. The outcry is, that the doctor will starve him.

Hence a variety of dishes is prepared to tempt the stomach to take food, and, in order to provoke the appetite, pickles are frequently given. The patient, from extreme kindness of friends or officiousness of the nurse, is teazed with repeated urgings, *to try to take a little more*, until the stomach has received so much as to produce effects directly opposite to those intended. Even after the disease is conquered, and the appetite begins to crave, it is always advisable to feed the patient sparingly for several days. Unlimited indulgence in the article of food, is a source from which a multitude of diseases arise in health; then how much more deleterious in its effects, must this be the case in a state of convalescence.

At this crisis, it is indeed a nice point to avoid giving the patient too much or too little nutriment; but even here, perhaps, excess is the most dangerous extreme. Great anxiety to prevent the sick from sinking, often induces their attendants and friends to give much more food than can possibly be digested, and it often lies as an offensive load upon the stomach, or induces an exhausting vomiting or diarrhœa. When the weakened condition of the digestion or assimilative organs are considered, it cannot but appear, even from that reason, that small portions of plain, simple food, given at stated intervals, will best support the remaining strength of the system, and this is really confirmed by experience.

In preparing all kinds of aliment, it is essentially necessary to be very cleanly, but more especially in that for sick people, the stomach being often so greatly weakened and disordered by the disease, as to render it difficult to find out by way of diet, what is agreeable to the natural powers, and suitable to the case.

The nurse, who ought to be the cook, with respect to this part of diet, may select, from the articles enumerated for the sick, such aliments as are suitable to the case. It is advisable that a choice be made of the things most likely to agree with the patient, that a change be provided, as invalids require variety; and that they should succeed each other in different forms.

Conclusion.—I believe I have now completed the task that was allotted me, and sincerely hope, notwithstanding its imperfections, the improvements I have made to this seventh edition of the "Medical Companion," will greatly enhance its value, and be productive of much comfort and good. So long as sickness is a concomitant of humanity, so long will a work of this kind retain its estimation. By persons in health, the possession of such a book may not be sufficiently prized; but when sickness finds access to a beloved wife or child, it will doubtless be read with pleasure, and considered in reality a valuable and acceptable companion for the sick chamber.

It is not to one description of persons alone that the "Medical Companion" will prove useful, but to every class of society.—Many families are ignorant even of the mode to prepare the various articles of diet suitable for the sick, and, with such, this part of the work, as a Family Assistant, must be of incalculable value. To the inquisitive mind, the attentive perusal of this book, from the beginning to the end, will be found to contain so many interesting facts, as will not fail to prove a source of rational and instructive entertainment.

To diffuse medical knowledge, is the most effectual mode of checking the career of empiricism; and indeed, so obvious is this, that it is surprising to find heads of families pay so little attention to the perusal of books of this kind, wherein they might obtain such information as would enable them to detect ignorant pretenders in the healing art, as well as afford them the very great satisfaction of rendering that assistance in the management of the sick, which humanity often loudly calls for.—Such knowledge is also highly useful, on the one hand, in preventing unnecessary apprehension respecting symptoms by no means dangerous; and, on the other, in giving the alarm, where delay might be injurious or fatal. And, again, there are situations in which a little medical knowledge may be of essential consequence to the comfort, or even the life of the patient, before regular assistance could be procured.

DIET FOR THE SICK.

Sage Tea.—Take of the leaves of green sage, plucked from the stalks and washed clean, half an ounce, (a handful,) loaf sugar an ounce, outer rind of lemon peel, undried, a quarter of an ounce, or a little lemon or lime juice, boiling water, two pints. Infuse them in a mug or pitcher, covered, for half an hour, and then pour off the tea. When the sage is dried it must be used in a less proportion than that above.

In the same manner teas may be made of balm, ground-ivy, catmint, rosemary, southern wood, &c. The lemon peel, or lemon juice, being omitted or not, and the sugar lessened or increased, as occasion requires.

Lemons, or apples cut in slices, tamarinds, currants, fresh or in jelly, cranberries, dried whortleberries infused in boiling water, sweetened with sugar or sirup, these may be so prepared and varied in form, as to suit every taste, and to answer the purpose of pleasant, cooling, and salutary drinks, in all febrile complaints. Such drinks should always be kept in a covered vessel.

BRAN TEA.—Take of bran, fresh ground, two handfuls; molasses or honey, one spoonful; boiling water, six pints. Mix them well, and when they have stood covered about three or four hours, strain off the tea.

FLAXSEED TEA.—Take of flaxseed, one ounce; white sugar, one ounce and a half; lemon juice, two table spoonfuls; boiling water, two pints. Infuse them in a pitcher some hours, and then strain off the liquor. An ounce of liquorice shaved, may sometimes be used instead of the sugar.

CAMOMILE TEA.—Take of camomile flowers, one handful; boiling water, one gallon. When they have stood covered about half an hour, strain off the tea. If the drinking this tea is to strengthen the stomach, it must be made stronger, as for instance, about a quarter of an ounce to a pint.

LEMONADE.—Take of the outer rind of fresh lemon peel, about one drachm; lemon juice, one ounce; double refined sugar, two ounces; boiling water, a pint and a half. When they have stood in a vessel about ten minutes, strain off the liquor.

ORANGEADE.—Take of the fresh outer rind of Seville orange, one drachm; orange juice, two or three table spoonfuls; white sugar, one or two ounces, or enough to make it of an agreeable sweetness; boiling water, one quart. When they have stood in a pitcher about ten minutes, strain off the liquor.

IMPERIAL DRINK.—Take of cream of tartar, one drachm; the outer rind of fresh lemon or orange peel, half a drachm; loaf sugar, one ounce; boiling water, two pints. When they have stood in a pitcher about ten minutes, strain off the liquor.

BARLEY WATER.—Take a handful of either pearl barley, or the common sort, wash it clean, first in cold, and afterwards in boiling water, then simmer it in a quart of water for an hour; when half done, put into it a bit of fresh lemon peel and a little sugar.—Rice water may be prepared as above.

Toast Water.—Toast slowly a thin piece of white bread till extremely brown and hard, but not the least black, then plunge it into a jug of cold water, and cover it over an hour before used.

Pectoral Drink.—Take of common barley and raisins stoned, each two ounces; liquorice root, half an ounce; water, two quarts. Boil the water first with the barley, then add the raisins, and afterwards, near the latter end of the boiling, the liquorice. The decoction then will be fully completed, when one quart only of the liquor will be left after straining.

Arrow-root Jelly.—Mix a large spoonful of the powder with a tea cup of cold water, by degrees, then pour this into a pint of boiling water, stirring it well, and when it boils it is finished. A little sugar and nutmeg may be added. Or prepare it as directed under the head of Arrow-Root.—[*See Materia Medica.*]

Sago Jelly.—Take of sago, washed well, one large spoonful; water, near a pint. Boil them gently, stirring often, till the mixture is smooth and thick; then add two spoonfuls of wine, a little nutmeg, and sweeten it to the taste. A bit of lemon peel added to it when boiling, gives it a pleasant taste and flavour, and with some patients it agrees better when boiled in milk.

Tapioca Jelly.—Choose the largest sort, pour cold water on to wash it two or three times, then soak it in fresh water five or six hours, and simmer it in the same until it becomes quite clear, then put lemon juice, wine, and sugar. The peel should have been boiled in it. It thickens very much.

Calves' Feet Jelly.—Boil two calves' feet in one gallon of water till it comes to a quart, then strain it, and when it is cold, skim the fat entirely off, and take the jelly up clean; if there is any settling at the bottom leave it. Put the jelly into a sauce-pan, with a pint of mountain wine, half a pound of loaf sugar, the juice of four large lemons, and the white of six or eight eggs, beat up the whisk; mix all well together, set the sauce-pan upon a clear fire, and stir the jelly till it boils. When it has boiled a few minutes, pour it through a flannel bag till it runs clear.—Have now ready a large china basin, with some lemon peel in it, cut as thin as possible, let the clear jelly run upon them while warm, and from these it will acquire both an amber colour, and an agreeable flavour. Afterwards it may be poured into glasses.

Boiled Flour.—Take a pound or two of fine flour, tie it up as tight as possible in a linen rag, dip it repeatedly in cold water, and dredge the outside with flour till a crust is formed around it, which will prevent the water soaking into it while boiling. It is then to be boiled till it becomes a hard dry mass. Two or three table spoonfuls of this may be grated down and boiled in milk and water to a proper thickness, and sweetened to the patient's taste, and a little nutmeg or other spice may be added. This forms an excellent food in dysentery, and in bowel complaints in children.

Water Gruel.—Take of the coarse part of corn meal or grits, two handfuls; water, three quarts; boil it till only two quarts remain, then strain off the liquor, and season it to the palate with salt, sugar and nutmeg, to which may be added a spoonful or two of wine.

Or, take of oatmeal, two large spoonfuls; water, one quart; mix them well, and boil them about ten or fifteen minutes, stirring often; then strain the gruel through a seive, and add sugar and salt enough to make it agreeable to the taste. When it is designed as a meal, dissolve in it a little butter, and then add bread and nutmeg, as occasion requires.

Rice Milk.—Take a large tea cupful of rice, washed nicely; water, one pint; boil it for about half an hour, then add a quart of new milk; let it simmer over a slow fire till it is sufficiently done, and then add to it a little sugar and nutmeg.

Treacle Posset.—Take of milk one pint, put it on the coals till it just begins to boil, then add two or three table spoonfuls of treacle or molasses, stirring the milk as it is poured in. When mixed it is fit for use.

Panado.—Take of bread one ounce; mace, one blade; water, one pint—Boil them without stirring, till they mix and turn smooth, then add a little grated nutmeg; a small piece of butter, and sugar enough to make the mixture agreeable. When butter is not approved of, two spoonfuls of wine may be used in its stead.

Or, set a little water on the fire, with a glass of white wine, some sugar, and a scrape of nutmeg and lemon peel; meanwhile, grate some crumbs of bread. The moment the mixture boils up, keeping it still on the fire, put the crumbs in; and let it boil as fast as it can. When of a proper thickness just to drink, take it off.

White Caudle.—Take of oatmeal two table spoonfuls; water, one quart; mace, two or three blades; three or four cloves. Mix them well together, boil them about fifteen minutes, stirring often, then add a few slices of the outer rind of a lemon; when the mixture has boiled about fifteen minutes, strain it through a sieve. As it is used, add to it white wine, grated nutmeg, white sugar enough to make it agreeable to the patient. Toasted bread is to be added likewise, as the appetite may require.

Or, put into a pint of fine gruel, made of coarse corn meal, or grits, while it is boiling hot, the yelk of an egg beaten with sugar, and mixed with a large spoonful of cold water, a glass of wine, and nutmeg. Mix by degrees. Some like gruel, with a glass of table beer, sugar, &c. with or without a tea spoonful of brandy.

Flour Caudle.—Into five large spoonfuls of the purest water, rub smooth one desert spoonful of fine flour. Set over the fire five spoonfuls of new milk, and put two bits of sugar into it; the moment it boils, pour into it the flour and water, and stir it over a slow fire twenty minutes. It is a nourishing and gently astringent food.

Rice Caudle.—When the water boils, pour into it some grated rice, mixed with a little cold water; when of a proper consistence, add sugar, lemon peel, and cinnamon, and a glass of brandy to a quart. Boil all smooth.

Bread Soup.—Take the upper crust of a roll, the drier the better; or two or three crackers, cut or break them into pieces, and put it into a sauce-pan, with a pint of water, and a piece of butter about half as big as a walnut; boil them well, every now and then stirring and beating them, till the bread is mixed; then season the soup with a very little salt, and pour it into a basin.

Egg Soup.—Take of water one pint; the yelk of an egg; butter, the bigness of a small walnut; sugar enough to make it agreeably sweet. Beat up the yelk with the water, and then add the butter and sugar. Stir it all the time it is upon the fire; when it begins to boil, pour it to and fro between the sauce-pan and mug till it is smooth and well frothed, and then it will be fit to drink.

Beef Tea.—Cut one pound of lean beef into thin slices or shreds, and boil it in a quart of water for twenty minutes, taking off the scum as it rises. After it grows cold, the liquor should be strained, in which state it resembles a light infusion of green tea, has a very grateful flavour, and is more strengthening than other broths.

Chicken Broth.—Take a middling sized chicken, divide it into two parts, put one half into a sauce-pan, with a quart of water, seasoned with a little salt; as the scum rises take it off; then may be added a small bundle of parsley, and a crust of bread; when they have boiled about three quarters of an hour, the parsley may be taken out, and the broth will be fit for use, or it may be used seasoned only with salt.

Mutton Broth.—Take of mutton one pound; water three pints. Put them into a sauce-pan, and set it upon a clear fire, throw in a little salt, and as the scum rises take it carefully off with a spoon; then add a small onion, if there is no objection to it, and a little parsley. Boil till the meat is very tender, then take it out, pour the broth into a basin, and when cold, skim the fat part which is congealed on the surface, entirely off; after which, a part of the broth may be warmed and given to the patient as often as needful. A little boiled rice or barley may be added here occasionally.

Calves' Feet Broth.—Boil two feet in three quarts of water, to half; strain and set it by; when to be used, take off the fat, put a large tea cupful of the jelly into a sauce-pan, with half a glass of sweet wine, a little sugar and nutmeg, and heat it up till it be ready to boil, then take a little of it, and beat by degrees to the yelk of an egg, adding a bit of butter, the size of a nutmeg, stir all together but do not let it boil. Grate a bit of fresh lemon peel into it.

Boiled Pigeon.—Take one pigeon, drawn, and washed very clean; boil it in a sufficient quantity of milk and water, that is, about half a pint of each, for fifteen minutes. When thus prepared, it may be taken out and ate with the following sauce:—Take the liver parboiled, bruise it fine, with a little parsley boiled, and finely chopped; melt some butter, and mix a little of it first with the liver and parsley, then add the rest, and pour the whole upon the pigeon.

To broil Pigeons.—After cleaning split the backs, pepper and salt them, and broil them very nicely; baste with butter, and serve as hot as possible.

Roast Pigeons—Should be stuffed with parsley, either cut or whole, and seasoned within. Serve with parsley and butter.

Partridges and other birds may be dressed as above.

Bread Pudding.—Take of crumbs of bread about half a pound; new milk, about three quarters of a pint. Pour the milk boiling hot upon the bread, and let it stand about an hour covered close up; then add the yelks of two eggs, well beaten; a little grated nutmeg; about a spoonful of rose water; a little salt, and sugar also if agreeable; beat the bread well, and mix the whole together with a spoon. Tie it then close up in a clean linen cloth, and when the water boils, put it in; boil about three quarters of an hour, then take it out, lay it upon a plate, pour over it some melted butter mixed with a little mountain wine, if there is no objection, and sprinkle a little sugar over all.

Batter Pudding.—Rub three spoonfuls of fine flour extremely smooth, by degrees, into a pint of milk; simmer till it thickens, stir into it two ounces of butter, set it to cool, then add the yelks of three eggs; flour a cloth that has been wet, or butter a basin, and put the batter into it; tie it tight, and plunge it into boiling water, the bottom upwards. Boil it an hour and a half, and serve with sweet sauce. If approved, a little ginger, nutmeg and lemon peel, may be added.

Rice Pudding.—Wash and pick some rice, throw among it some pimento finely pounded, but not much; tie the rice in a cloth, and leave room for it to swell. Boil it in a quantity of water for an hour or two. When done, eat it with butter and sugar, or milk. Put lemon peel if you please. It is very good without spice, and eaten with salt and butter.

Or, swell the rice with a very little milk over the fire, then add some more milk, an egg, sugar, allspice, and lemon peel. Bake in a deep dish.

Potato Pudding.—Take eight ounces of boiled potatoes, two ounces of butter, the yelks and whites of two eggs, a half pint of new milk, one spoonful of white wine, a morsel of salt, the juice and rind of a lemon beat all to froth; sugar to taste.—A crust or not, as you like. Bake it.

Custard Pudding.—Mix by degrees a pint of good milk with a large spoonful of flour, the yelks of four eggs, and a little pounded cinnamon. Butter a basin that will exactly hold it, pour the batter in, and tie a floured cloth over. Put in boiling water over the fire, and turn it about a few minutes to prevent the egg going to one side. Half an hour will boil it.

WINE WHEY.—Take of new milk two pints; water, one pint; white wine, one gill. Put the milk and water into a sauce-pan, well tinned, and set them upon a clear fire, and when they begin to boil, throw in the wine. Boil them about fifteen minutes, during which time, as the curd, or cheesy part collects, take it off with a spoon, and if the whey is not clarified enough with this quantity of wine, add a spoonful or two more; then boil it a little longer and skim it, by which means it will become sufficiently fine, and then it may be poured into a basin for use.

Or, put half a pint of new milk on the fire; the moment it boils up, pour in as much sound raisin wine as will completely turn it, and it looks clear; let it boil up, then set the sauce-pan aside till the curd subsides, and do not stir it. Pour the whey off, and add to it half a pint of boiling water, and a bit of white sugar. Thus you will have whey perfectly cleared of milky particles, and as weak as you choose to make it.

MUSTARD WHEY.—Boil one ounce and a half of mustard in powder, in a pint of milk, and an equal portion of water, till the curd be entirely separated, after which the liquid is strained through a cloth. This preparation is one of the most pleasant and efficacious forms in which mustard can be given. A tea cupful sweetened with sugar, taken three or four times in a day, is exceedingly beneficial in low fevers as a cordial diaphoretic. Vinegar and lemon whey may be formed in the same manner as wine whey.

ALUM WHEY.—Boil two drachms of powdered alum in a pint of milk till it is curdled; then strain out the whey. This astringent preparation is often employed with advantage in uterine hemorrhage, and in diabetes. The dose is two or three ounces, or as much as the stomach will bear, several times in the day.

To mull port wine.—Boil some spice in a little water till the flavour is gained, then add an equal quantity of wine, some sugar and nutmeg; boil it together, and serve with toast.

Another way. Boil some allspice, or a bit of cinnamon, and some grated nutmeg a few minutes, in half a pint of water; then pour to it a pint of wine, and add sugar to your taste, beat it up and it will be ready.

To mull white wine.—Boil a pint of good wine with a table spoonful of allspice; beat up the yelk of an egg with a little sugar, and add it to the wine while boiling.

Refreshing drinks in fevers.—Boil two quarts of water with two ounces of tamarinds, an equal quantity of currants and raisins, till near a fourth be consumed. Strain it on a piece of lemon peel, which remove in an hour, as it gives a bitter taste if left long.

Tamarinds, currants, fresh or in jelly, or scalded currants or cranberries, with cold water, make excellent drinks; a little sugar may be added if agreeable.

Lemon water.—Put two slices of lemon, thinly pared, into a teapot, a small piece of the peel and some white sugar, pour in a pint of boiling water, and stop it close two hours.

Apple water.—Cut two large apples in slices, and pour a quart of boiling water on them, or on roasted apples, strain in two or three hours, and sweeten lightly.

DISPENSATORY.

Having finished, as far as the limits of this work will permit, a general detail of the practice of domestic medicine, adapted to the climate of our country, it now only remains to notice the medicines requisite for family use, and to point out the best forms of prescribing them, in the treatment of the different diseases, described in the preceding parts of this work.

The following table of medicines will be found sufficient to answer every purpose of domestic practice, and the expense will be found nothing, compared to the great advantages which must result from being constantly supplied with them. To render the work still more complete, I have, in this table, annexed to the medicines, their doses according to the age of the patient; observing, however, that whatever general rule may be given, it can only be applied with reference to the habit and state of the patient. The judgment of the person who administers the medicine must, therefore, be exercised in this respect. It will be found that the constitution is often attended with certain peculiarities, both in relation to medicine in general, and also to certain substances particularly, which knowledge is only to be obtained by experience.

EXPLANATION OF WEIGHTS AND MEASURES.

20 grains make - - - - -	1 scruple,
3 scruples - - - - - -	1 drachm,
8 drachms - - - - -	1 ounce,
12 ounces - - - - - -	1 pound.

A tea spoonful is equal to 60 drops, or 1 drachm.

A table spoonful is the measure of half an ounce.

A large wine glassful is equal to two ounces.

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*Sixteen pages, under the head of Malignant Fever, were omitted to be numbered.

A TABLE OF MEDICINES FOR FAMILY USE,

WITH THEIR DOSES AND QUALITIES ANNEXED.

☞ *These doses must be increased, or diminished, according to the strength and habit of the patient.*

Medicines.	*Adult.*	*From 15 to 10.*	*From 10 to 6.*	*From 6 to 4.*	*From 4 to 2.*	*From 2 to 1.*	*Under one.*	*Qualities.*
Arsnic, solu. of,	5 to 12 drops	4 to 8 drops	3 to 6 drops.	2 to 5 drops	1 to 4 drops	½ to 3 drops	½ to 2 drops	Tonic.
Antimonial wine	3 to 4 drms.	2½ to 3 drms.	2 to 2½ drms.	½ to 2½ drms.	1 to 2 drms.	1 to 1½ drms.	½ to 1 drm.	Emetic
——as a diaphoretic	26 to 60 drps.	15 to 40 drops	12 to 30 drops	10 to 20 drops	8 to 15 drops	6 to 10 drops	4 to 8 drops	Diaphoretic.
Alum	5 to 15 grains	3 to 10 grains	2 to 7 grains	1½ to 5 grains	1 to 3 grains	-- --	-- --	Astringent.
Aloes	5 to 20 grains	3½ to 15 grs.	3 to 12 grains	2 to 10 grains	1¼ to 8 grains	-- --	-- --	Cathartic.
Arrow root	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Nutritious food.
Balsam capivi	20 to 80 drops	15 to 40 drops	12 to 30 drops	10 to 20 drops	8 to 15 drops	5 to 10 drops	-- --	Corroborant.
Balsam Turlington	do. do.	do. do.	do. do.	do. do.	do. do.	do. do.	do. do.	Corroborant.
Barley	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Nutritive.
Bitters	2 to 4 drms.	1 to 2 drms.	-- --	-- --	-- --	-- --	-- --	Stomachic.
Borax	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Deterg. externally.
Bark, Peruvian,	30 grs. 2 drms	25 to 1¼ drms.	20 to 1 drm.	15 to 40 grains	12 to 30 grains	10 to 25 grains	6 to 16 grains	Tonic & antiseptic.

Medicines.	*Adult.*	*From 15 to 10.*	*From 10 to 6.*	*From 6 to 4.*	*From 4 to 2.*	*From 2 to 1.*	*Under one.*	*Qualities.*
Calomel	10 to 30 grs.	8 to 20 grains	6 to 15 grains	5 to 12 grains	4 to 10 grains	3 to 8 grains	1 to 5 grains	Active purgative.
Camphor	4 to 20 grains	2 to 10 grains	2 to 6 grains	2 to 4 grains	1 to 3 grains	1 to 2 grains	½ to 1 grain	Stimulant.
Cream of tartar	4 to 12 drms.	3 to 8 drms.	2 to 5 drms.	2 to 4 drms.	1 to 3 drms.	½ to 2 drms.	½ to 1 drm.	Cooling aperient.
Caustic vol. alk. liq.	½ to 2 drms.	½ to 1 drm.	25 to 50 drops	20 to 40 drops	15 to 30 drops	10 to 20 drops	-- --	Stimulant.
Corrosive sublimate	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Anti-venereal.
Columbo	10 to 60 grains	8 to 40 grains	7 to 35 grains	6 to 25 grains	5 to 20 grains	4 to 15 grains	2 to 10 grains	Stomachic and tonic
Chalk, prepared	25 to 50 grains	16 to 40 grains	15 to 35 grns.	12 to 30 grains	10 to 25 grs.	7 to 20 grains	5 to 12 grains	Absorbent.
Camomile flowers	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Stomachic & antisep
Castile soap	20 to 80 grs.	20 to 50 grs.	15 to 40 grs.	12 to 30 grs.	10 to 25 grs,	8 to 20 grains	5 to 10 grains	Attenuant & deter.
Castor oil	4 to 12 drms.	3 to 8 drms.	2½ to 6 drms.	2 to 5 drms.	1½ to 4 drms.	1 to 3 drms.	1 to 2 drms.	Purgative.
Essence peppermint	10 to 50 drops	8 to 30 drops	6 to 20 drops	4 to 15 drops	3 to 12 drops	2 to 10 drops	1 to 6 drops	Carminitive.
Elixir vitriol	15 to 40 drops	10 to 30 drops	8 to 20 drops	6 to 15 drops	4 to 10 drops	2 to 6 drops	1 to 4 drops	Tonic.
Æther vitriolic	½ to 2 drms.	30 dps to 1 dm	18 dps to 1 dm	15 to 50 drops	12 to 40 drops	8 to 30 drops	5 to 10 drops	Stimulant.
Flaxseed	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Pectoral & obtund.
Ginger	5 to 25 grains	4 to 18 grains	3 to 15 grains	3 to 12 grains	2 to 10 grains	2 to 8 grains	1 to 6 grains	Aromatic.

Medicines.	Adult.	From 15 to 10.	From 10 to 6.	From 6 to 4.	From 4 to 2.	From 2 to 1.	Under one.	Qualities.
Gamboge	6 to 12 grains	4 to 8 grains	3 to 6 grs.	-- --	-- --	-- --	-- --	Purgative.
Gum Arabic	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Obtunding.
Hartshorn, spirit	½ to 1½ drms.	20 to 50 drops	15 to 30 drops	10 to 15 drops	5 to 10 drops	3 to 8 drops	2 to 6 drops	Stimulant.
Honey	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Pectoral.
Ipecacuanha	15 to 30 grs.	10 to 20 grs.	8 to 15 grs.	6 to 12 grs.	5 to 10 grs.	4 to 8 grs.	1 to 5 grains	Emetic.
Jalap	15 to 40 grs.	8 to 25 grs.	6 to 20 grs.	5 to 15 grs.	4 to 12 grs.	3 to 8 grs.	2 to 5 grs.	Purgative.
Lunar Caustic	1-6 to 3 grs.	1-8 to 2 grs.	1-10 to 1½ grs.	1-10 to 1 grain	1-12 to ½ gr.	-- --	-- --	Stimulant.
Laudanum	20 to 60 drops	12 to 40 drops	10 to 25 drops	8 to 20 drops	5 to 15 drops	3 to 8 drops	2 to 6 drops	Anodyne.
Magnesia	½ to 2 drms.	20 grs. to 1 dm.	15 to 50 grs.	10 to 40 grs.	8 to 30 grs.	6 to 20 grs.	4 to 10 grs.	Absorbent.
Manna	1 to 2 ounces	½ to 1½ ounce	½ to 1 ounce	3 to 6 drms	2 to 4 drms	1 to 3 drms.	½ to 2 drms.	Mild aperient.
Nitre	10 to 30 grs.	8 to 20 grs.	5 to 12 grs.	2 to 10 grs.	2 to 8 grs.	1 to 6 grs.	1 to 4 grs.	Diuretic and febrile.
Nitric acid	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Tonic and anti-scor.
Oil of olive	-- --	-- --	-- --	-- --	-- --	1 to 3 drms.	1 to 2 drms.	Obtunding and open
Opium	½ to 3 grains	½ to 1 grain	-- --	-- --	-- --	-- --	-- --	Anodyne & antisep.
Paregoric Elixir	1 to 4 drms.	1 to 2 drms.	50 dps to 1½ dm	30 dps. to 1 dm.	20 to 50 drops	15 to 30 drops	2 to 20 drops	Anodyne & pectoral

Medicines.	*Adult.*	*From 15 to 10.*	*From 10 to 6.*	*From 6 to 4.*	*From 4 to 2.*	*From 2 to 1.*	*Under one.*	*Qualities.*
Pink Root, Carolina	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Vermifuge.
Rhubarb powdered	15 to 50 grs.	10 to 40 grs.	8 to 30 grains	6 to 25 grains	5 to 20 grs.	4 to 12 grs.	2 to 10 grs,	Mild cathartic.
Rattle Snake Root	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Diaphoretic.
Rust of Steel	5 to 25 grains	3 to 15 grains	2½ to 3 grains	2 to 10 grains	1 to 6 grs.	¼ to 2 grs.	-- --	Tonic.
Red Precipitate	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Escharotic.
Sugar of Lead	1 to 6 grains	½ to 4 grains	½ to 3 grains	¼ to 3 grains	1-6 to 2 grs.	1-8 to 1 gr.	-- --	Astringent & tonic.
Spanish Flies	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Blistering.
Salts	4 to 16 drms.	3 to 12 drms.	2 to 8 drms.	2 to 6 drms.	1½ to 4 drms.	1 to 3 drms.	½ to 2 drms.	Cathartic.
Salt of Tartar	10 to 30 grs.	8 to 20 grains	6 to 12 grains	4 to 8 grains	3 to 6 grs.	2 to 4 grs.	1 to 3 grs.	Absorbent & febri.
Spirits of Turp.	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Stimulant.
Sal Ammo. Vola.	5 to 20 grains	4 to 12 grains	4 to 10 grains	3 to 8 grs.	2 to 6 grs.	1½ to 4 grs.	1 to 3 grs.	Stimulant.
……………… crude	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Discutient.
Senna	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Purgative.
Spirits of Lavender	30 dps to 2 dms	20 dps to 1 dm	15 to 50 drops	12 to 40 drops	10 to 30 drops	6 to 20 drops	2 to 10 drops	Cordial.
Sulphur, flour of	2 to 8 drms.	1 to 4 drms.	1 to 3 drms.	½ to 2 drms.	20 grs. to 1 dm	10 to 40 grs.	5 to 20 grs.	Aperient.

Medicines.	*Adult.*	*From* 15 *to* 10.	*From* 10 *to* 6.	*From* 6 *to* 4.	*From* 4 *to* 2.	*From* 2 *to* 1.	*Under one.*	*Qualities.*
Tamarinds	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Cooling, laxative.
Tartar emetic	2 to 6 grains	2 to 4 grs.	1½ to 3 grs.	1 to 2 grs.	¼ to 1 grain.	½ to 1 grain	¼ to 1 grain	Emetic.
Turner's cerate	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Healing.
Tincture of Steel	8 to 18 drops	5 to 12 drops	4 to 10 drops	3 to 8 drops	2 to 6 drops	1 to 5 drops	2 to 3 drops	Tonic.
…… rheumatic	½ to 1 ounce	2 to 4 drms.	1 to 3 drms.	¼ to 2 drms.	20 to 60 drops	-- --	-- --	Anti-rheumatic.
…… bark	2 to 6 drms.	1¼ to 4 drms.	1 to 3½ drms.	1 to 3 drms.	¾ to 2 drms.	½ to 1½ drms.	20 to 40 drops	Tonic.
…… rhubarb	4 dms. to 2 oz	3 to 8 drms.	2 to 6 drms.	2 to 5 drms.	1½ to 3 drms.	1 to 2 drms.	20 to 40 drops	Mild cathar. & stom.
…… foxglove	10 to 60 drops	8 to 40 drops	6 to 30 drops	5 to 20 drops	4 to 15 drops	2 to 12 drops	1 to 8 drops	Diuretic.
…… Cantharides	10 to 50 drops	10 to 40 drops	8 to 30 drops	6 to 20 drops	4 to 15 drops	2 to 5 drops	1 to 5 drops	Stimulant.
…… columbo	1 to 4 drms.	1 to 3 drms.	40 dps to 2½ dm	30 dps to 2 dms	20 dps to 1½ dm	15 dps to 1 dm	10 to 40 drops	Tonic.
…… myrrh	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Detergent.
Vitriol, white	20 to 60 grs.	14 to 30 grs.	6 to 15 grs.	4 to 10 grs.	2 to 5 grs.	1 to 3 grains	-- --	Emetic.
…… as a tonic	2 to 5 grs.	1 to 3½ grains	½ to 2 grs.	¼ to 1 gr.	-- --	-- --	-- --	Tonic.
…… blue	-- --	-- --	-- --	-- --	-- --	-- --	-- --	Escharotic.
Virginia Snake root	10 to 20 grs.	8 to 15 grs.	6 to 10 grs.	3 to 6 grs.	1 to 4 grs.	1 to 3 grains	-- --	Stimulant & stomac.

A TABLE OF MEDICINAL COMPOSITIONS,

WITH THEIR DOSES AND PROPERTIES.

Compositions.	*Adult.*	*From 15 to 10.*	*From 10 to 6.*	*From 6 to 4.*	*From 4 to 2.*	*From 2 to 1*	*Under one.*	*Properties.*
Antimonial powders	8 to 15 grains	7 to 12 grains	6 to 8 grains	4 to 6 grains	3 to 5 grains	2 to 4 grains	1 to 3 grains	Diaphoretic.
Anti. solu. or mix.	3 to 6 drms.	2 to 4 drms.	1½ to 3 drms.	1 to 2 drms.	½ to 2 drms.	¼ to 1 drm.	¼ to 1 drm.	Diaphoretic.
Anodyne sudor. dps.	60 to 100 drps	50 to 80 drops	40 to 70 drops	30 to 60 drops	20 to 50 drops	10 to 30 drops	5 to 20 drops	Anodyne & sudorific
Absorbent mixture	4 to 8 drms.	3 to 5 drms.	3 to 4 drms.	2 to 3 drms.	1½ to 2½ drms.	1 to 2 drms.	½ to 1 drm.	Absorbent.
Absor. & aperi. mix	-- --	-- --	-- --	3 to 4 drms.	2 to 4 drms.	1 to 3 drms.	½ to 2 drms.	Absorb. & aperient.
Anti-dysenteric mix	6 to 12 drms.	5 to 8 drms.	4 to 6 drms.	3 to 5 drms.	2½ to 4 drms.	2 to 3 drms.	1 to 2 drms.	Anti-dysenteric.
Astringent mixture	5 to 8 drms.	3 to 6 drms.	2½ to 4 drms.	2 to 3 drms.	1½ to 2 drms.	1 to 2 drms.	½ to 1 drm.	Astringent.
Cathartic mixture	6 to 12 drms.	5 to 8 drms.	4 to 6 drms	3 to 5 drms.	2½ to 4 drms.	2 to 3 drms.	1 to 2 drms.	Cooling cathartic.
Camphor powders	10 to 15 grs.	8 to 12 grains	6 to 10 grs.	5 to 8 grains	4 to 6 grains	3 to 5 grains	2 to 4 grains	Stimu. & diaphoretic
Camp. julep or mix.	6 to 8 drms.	4 to 6 drms.	3 to 4 drms.	2 to 4 drms.	1 to 3 drms.	1 to 2 drms.	½ to 1 drm.	Stimulant.
Decoc. or infus bark	2 to 6 ounces	1½ to 4 ozs.	1¼ to 3½ ounces	1 to 3 ounces	1 to 2 ounces	6 to 12 drms.	4 to 8 drms.	Tonic.
Decoction of Seneca	6 to 12 drms.	5 to 8 drms.	4 to 6 drms.	3 to 5 drms.	2½ to 4½ drms.	2 to 4 drms.	1 to 3 drms.	Diaphoretic.
Diaphoretic drops	1 to 3 drms.	1 to 1½ drm.	½ to 1 drm.	20 to 40 drops	15 to 30 drops	10 to 20 drops	5 to 10 drops	Diaphoretic.

Compositions.	Adult.	From 15–10	From 10 to 6	From 6 to 4	From 4 to 2	From 2 to 1	Under one.	Properties.
Diuretic mixture	2 to 4 ounces	2 to 3 ounces	1½ to 3 ounces	1 to 2 ounces	1 to 1½ ounce	½ to 1 ounce	1 to 4 drms.	Diurectic.
Dover's powder	10 to 20 grs.	6 to 12 grains	5 to 10 grains	4 to 8 grains	3 to 6 grs.	2 to 4 grs.	½ to 1 gr.	Diaphoretic.
Febrifuge powders	8 to 15 grains	7 to 10 grains	6 to 8 grains	4 to 6 grains	3 to 5 grs.	2 to 4 grs.	1 to 3 grs.	Febrifuge.
Febrifuge mixture	6 to 12 drms.	5 to 8 drms.	4 to 8 drms.	4 to 6 drms.	3 to 5 drms.	2 to 4 drms.	1 to 4 drms.	Febrifuge.
Infusion of Columbo	1 to 3 ounces	1 to 2 ounces	1 to 2 ounces	½ to 2 ounces	½ to 1 ounce	2 to 6 drms.	1 to 4 drms.	Tonic.
Lime water	1 to 4 ounces	1 to 3 ounces	1 to 2 ounces	½ to 2 ounces	½ to 1 ounce	2 to 6 drms.	1 to 2 drms.	Absorb. and Tonic,
Pectoral mixture	4 to 8 drms.	3 to 6 drms.	2½ to 5 drms	2 to 4 drms.	1½ to 3 drms.	1 to 2 drms.	½ to 1 drm.	Obtunding.
Purgative electuary	2 to 4 drms.	1½ to 3 drms.	1 to 2 drms.	1 to 1½ drm.	½ to 1 drm.	¼ to 1 drm.	-- --	Purgative.
Saline mixture	6 to 8 drms.	4 to 7 drms.	4 to 6 drms.	3 to 5 drms.	3 to 4 drms.	2 to 3 drms.	1 to 2 drms.	Diaphoretic.
Spirit of mindererus	6 to 8 drms.	4 to 7 drms.	4 to 6 drms.	3 to 5 drms.	3 to 4 drms.	2 to 3 drms.	1 to 2 drms.	Diaphoretic.
Sirup of flaxseed	6 to 8 drms.	4 to 7 drms.	4 to 6 drms.	3 to 5 drms.	3 to 4 drms.	2 to 3 drms.	1 to 2 drms.	Pect. and Obtunding
Solu. Sul. Quinine	1 to 2 drms	½ to 2 drms	½ to 1 drm	20 to 40 drops	15 to 30 drops	10 to 20 drops	5 to 10 drops	Tonic.
Tonic powders	15 to 50 grs.	10 to 30 grs.	8 to 25 grains	6 to 20 grs.	4 to 12 grs.	1 to 6 grs.	1 to 3 grs.	Tonic.
Vitriolic solution	4 to 6 drms.	2 to 4 drms.	2 to 3 drms.	1½ to 2½ drms.	1 to 2 drms.	1 to 2 drms.	½ to 1 drm.	Astringent.

DISPENSATORY.

EMETICS,

Are medicines which excite vomiting, and are usefully employed in fevers of almost every species, especially when accompanied in the commencement with nausea, vomiting, and other symptoms indicating a disordered state of the stomach. They cleanse the stomach of its noxious contents, and prepare the way for the reception of other remedies.

As a general rule, emetics should always be given on an empty stomach, and in the morning. They act with greater certainty, and with less distress to the patient. They will, however, answer very well in the evening. In ordinary cases, administer the medicine in divided quantities, so as to guard against too violent an effect, and encourge its operation by drinking freely of warm water.

To check inordinary vomiting from too large a dose of emetic medicine, give laudanum, combined with some cordial, apply fomentations to the pit of the stomach, and sinapisms to the extremities. Chicken water, copiously drank, is sometimes useful by turning the action downwards. When these fail, anodyne injections may be resorted to, and a large blister should be put on over the region of the stomach.

Of the emetics, the mildest are ipecacuanha, the antimonial solution, and antimonial wine, in broken doses. The most active and expeditious, are the white and blue vitriol. Where poisons have been swallowed, one or other of these should be given in very large doses, and repeated every fifteen minutes until the desired effect be obtained.—[*See Thorn Apple, and Poisons.*]

Antimonial Solution.—Take of tartar emetic, six grains, water half a pint; spirits of lavender, thirty drops; sugar, one lump,—Mix. Dose for adults a wine-glassful every fifteen minutes, which should be encouraged by drinking freely of warm water, and afterwards turned downwards by taking a bowl of thin gruel made very salt.

CATHARTICS,

Are medicines which, by quickening the peristaltic motion, increase the evacuations of the intestines, or as may happen, induce purging. Cathartics differ very materially in their degree of activity; some operating mildly, while others are more violent in their effects. The former is usually distinguished by the title of *laxatives*, and the latter by that of *purgatives*, the harshest of which, are called *drastic* purgatives.

The primary and most obvious effect of carthartics, is the evacuation of the bowels. These are liable to various accumulations of a morbid nature, which, remaining, disturb health, and frequently excite or confirm disease. Carthartics, in relieving the bowels, under such circumstances, extend also their operation upwards, and bring down, in many instances, the contents of the stomach. To this may be added, that the strong impression which they impart to the liver and pancreas, excite these glands to invigorated efforts, and the result is a vast increase of their respective secretions. It is in this way, that congestions are removed, biliary calculi dislodged, and jaundice and other affections, from organic obstruction, cured. They also subdue the pulse, equalize excitement, and render important service in the management of the febrile and inflammatory cases. Exhibited in the commencement of almost any febrile affection, they will often arrest its progress, and, during the subsequent or more advanced periods, they are sometimes daily repeated, and so far from weakening, add to the strength of the patient.

As in the case of emetics, give the medicine on an empty stomach, and either in the morning or at bed time. By doing this, we prevent its being rejected, and secure a much more easy and effectual operation. And it should be recollected, as cathartics are of very different properties and modes of operation, they should carefully be selected according to the circumstances of the case.

Laxatives.—Of this description are castor oil, sweet oil, magnesia, calomel, neutral salts, sulphur, cream of tartar; as also the cathartic mixture, and the aperient and diaphoretic pills, in broken doses.

Cathartic Mixture.—Take of glauber salts, one ounce and a half; lemon juice or sharp vinegar, one ounce; water, half a pint; sugar, a sufficient quantity to sweeten it.—Mix.

Or, take of cream of tartar finely powdered, and manna, each one ounce; water, half a pint; sugar, a sufficient quantity to sweeten it.—Mix. Dose for adults, a wine glassful every hour till it operates.

Antibilious, or Aperient and Diaphoretic Pills.—Take of calomel, jalap, each twenty grains; tartar emetic, two grains; sirup or mucilage of gum arabic, sufficient to form a mass; make eight pills. Dose for adults, two at bed time, and the dose repeated every hour in the morning until it operates sufficiently.—Or take four in the morning, and one every hour until the desired effect is obtained.

Purgatives.—The drastics are the gamboge, aloes, calomel, jalap, rhubarb, and senna, the purgative infusion, purgative powder, stimulant purgative pills, and purgative electuary. The distinction, however, between laxatives and purgatives, is by no means easy, since by diminishing or increasing the dose of the former, they may, with some propriety, be considered as belonging to the first or second class.

Purgative Infusion.—Take of senna and manna, each, half an ounce; salts, one ounce; ginger, one drachm; boiling water, one pint. Dose for adults, one gill every hour or two, until it operates.

Purgative Powder.—Take of calomel and jalap, each twenty grains, to be taken in the morning in sirup or molasses by adults.

Or, take of rhubarb and vitriolated tartar in fine powder, each one drachm; mix well together, and divide into four powders.—One taken going to bed, and another in the morning, will be found an efficacious remedy, whenever it is required to cleanse the stomach and bowels, of bilious and other offensive matter.

Stimulant Purgative Pills.—Take of calomel and gamboge each one drachm; sirup sufficient to form a mass. Beat them together, and then make twenty-four pills. Dose for adults, from three to six.

Or, take of calomel, aloes, rhubarb, and soap, each one drachm; sirup or mucilage of gum arabic, sufficient to form a mass.—Beat them well together, and make forty eight pills. Dose for adults from four to eight.

Or, take of calomel and jalap, each, one drachm; powdered ginger and soap, each half a drachm; mucilage or sirup sufficient to form a mass—divide into thirty pills. Dose for adults from four to eight.

Aloetic Pills.—Take of Socotorine aloes, in the finest powder, one drachm and a half; castile soap, one drachm; ginger, half a drachm. Beat them well together, and then add mucilage or sirup sufficient to form a mass—which is to be made into forty-eight pills. Dose for adults, two at bed time, or a sufficient number to keep the bowels in a regular state.

Purgative Electuary.—Take of jalap, one drachm; cream of tartar, one ounce; sirup or molasses as much as will give the whole a proper consistence. Dose for adults, from one to two tea spoonfuls in the morning, to keep the bowels in a soluble state.

DIAPHORETICS.

In the common language of the schools, the term *diaphoretic*, is restricted to those articles only which promote the insensible perspiration; and such as occasion sweating, are distinguished by the appellation of *sudorifics*. But, as in the medicines arranged under these titles we can discern no difference, except in the degree of force, or what arises from the manner of administration, we shall comprehend the whole under the head of diaphoretics.

To promote perspiration it is essentially necessary that the patient should be confined to his bed. Let his pulse, and the temperature of the body, be carefully watched. It is a principle settled and fully recognised, never to resort to diaphoretics in fevers of an inflammatory species, till arterial action and general excitement are considerably reduced by previous venesection and evacuations by puking or purging. After this direct depletion, diaphoretics then come in with great advantage, and will commonly either mitigate or completely arrest the progress of the disease.

In the exhibition of diaphoretics give diluent drinks, unless the stomach is irritable. This remark particularly applies to the antimonial preparations, and some of the combinations of ipecacuanha. The temperature of the drinks must be regulated by that of the skin. The latter not being high, they should be warm, or even hot, but if the contrary prevails, they must be given cold.

In the low stages of disease, while pursuing the diaphoretic plan, studiously avoid purging, unless circumstances imperiously require this remedy. It is very apt, in this state of the system, to check sweating, and to bring on an aggravation of the complaint. It does this by diverting action from the surface to the intestines, and by exposing the patient to cold.

Diaphoretic Drops.—Take of sweet spirits of nitre and antimonial wine, each, one ounce.—Mix. Dose for adults, a tea spoonful every two hours. If the stomach is in an irritable state, add only half the quantity of antimonial wine.

Antimonial Wine.—Dose for adults, twenty drops every hour or two, till the proper effect be produced.

Saline Julep or Mixture.—Take of lemon juice, one ounce; volatile sal ammoniac, one drachm, or salt of tartar four scruples. After the effervescence, add sirup, two tea spoonfuls; simple cinnamon water, or tea, half an ounce, or spirits of lavender, thirty drops; spring water, six ounces.—Mix. Dose for adults, two table spoonfuls every three hours.

Effervescing Draught.—Take fifteen grains of salt of wormwood, or volatile sal ammoniac, dissolved in a table spoonful of water, in one cup; in another, two large tea spoonfuls of lime juice, lemon juice, or one table spoonful of very good vinegar, with one or two table spoonfuls of water sweetened; pour one to the other, and let the patient drink immediately while they effervesce. When made with fresh lime or lemon juice, this is an elegant, pleasant, and useful medicine in all fevers, and peculiarly effectual in removing nausea and vomiting; it may be repeated every two or three hours.

Spirit of Mindererus.—Take of volatile sal ammoniac, two drachms; lemon juice or vinegar, half a pint, or as much as may be sufficient to saturate the volatile alkali.—Mix. A dose to be taken every two hours.

Antimonial Solution.—Dose for adults, a table spoonful every two hours as a diaphoretic. (*See Emetics.*)

Antimonial Powders.—Take of tartar emetic, three grains; nitre, two drachms.—Mix, and divide into twelve doses. One dose to be taken every two or three hours by adults. In obstinate cases, the addition of ten or twelve grains of calomel to the above recipe, will render the medicine more salutary.

Febrifuge Powders.—Take of ipecacuanha, two scruples; nitre, two drachms.—Mix, and divide into twelve doses. One dose to be taken every two or three hours by adults.

Febrifuge Mixture.—Take of nitre, two drachms; lemon juice or vinegar, one ounce; water, half a pint; sugar, a sufficient quantity to sweeten it.—Mix. A wine glassful to be taken by adults every two hours. It will be rendered more active by the addition of two drachms of antimonial wine.

Dover's Powder.—Ipecacuanha, powdered, and opium, each, one drachm; vitriolated tartar, in powder, one ounce.—The greatest possible pains should be taken to grind the mass to a completely fine powder. Nitre may be substituted for the vitriolated tartar, when that is not at hand. This powder is the most efficacious sudorific we possess. It is an admirable remedy for quieting the bowels, when affected by the exhibition of mercury, or any other cause. Dose for adults from ten to twenty grains every three or four hours.

Camphorated Powders.—Take of comphor, two scruples; nitre powdered, two drachms.—Moisten the camphor with spirits, and after reducing it to a fine powder, add the nitre. Divide into twelve doses. One to be taken every two or three hours by adults.

Anodyne Sudorific Drops.—Take of laudanum half an ounce; antimonial wine, one ounce.—Mix. Dose for adults, two tea spoonfuls at bed time.

Anodyne Sudorific Bolus.—Take of opium, one grain and a half; ipecacuanha, ten grains; sirup or mucilage, sufficient to form a bolus.

Or, take of opium, one grain and a half; tartar emetic, one grain; or golden sulphur of antimony, two grains; mucilage sufficient to form a pill. To be taken by adults at bed time.

For children, the best means of procuring a perspiration is the tepid bath, succeeded by the use of a table spoonful of saline julep, or the diaphoretic drops, every two or three hours.

Besides the warm bath, the external stimulating diaphoretics are, friction, rubefacients, and blisters, which excite copious partial perspiration, previous to their vesication.

There are many vegetable substances which belong to this class of medicines, particularly the Virginia and seneca snake roots, sarsaparilla, thoroughwort, &c. (*See Materia Medica.*)

DEMULCENTS.

Demulcent Drinks—Are those which sheath the acrimony of the humors, and render them mild, such as flaxseed tea, marshmallow tea; mucilage of quince seeds, pith of sassafras, slippery elm, [*See Materia Medica*,] and gum arabic. A solution of gum arabic is made by boiling one ounce of picked gum arabic, in little more than a quart of water, until it be dissolved. All these are useful to sheath and defend very sensible parts from the irritation of acrid humors, as is the case in a tickling cough, and common lax, or bloody flux, heat of urine, &c. in all which, the natural mucus of the parts is defective.

ABSORBENTS.

Absorbent Medicines—Are such as correct acidity in the stomach.

Calcined Magnesia.—One or two tea spoonfuls to be taken occasionally mixed in milk or mucilage of gum arabic, by adults.

Prepared Chalk.—A tea spoonful to be given in the same manner as magnesia.

Lime Water.—A wine glassful, with an equal quantity of new milk, to be taken occasionally by adults.

Absorbent Mixture.—Take of chalk prepared, half an ounce; gum arabic, powdered, and white sugar, each, two drachms; water, four ounces. Dose for adults, a table spoonful every two or three hours.

Absorbent and Aperient Mixture—Is made by adding one drachm of rhubarb in powder, or half an ounce of the tincture of rhubarb, to the above recipe.

Or, take of prepared chalk and magnesia, each, half an ounce; sugar, two drachms; rub them well together, then add mucilage of gum arabic, two ounces; weak cinnamon tea, four ounces.—Mix. Dose for children, from one to two tea spoonfuls.

DIURETICS,

Are remedies to promote the urinary discharge, which may take place, either by stimulating the kidneys, or by an invigoration of the powers of absorption, and especially in cases of dropsical effusion. It hence appears, that diuretics are of two species, though in whichever mode they operate, it is by an action primarily on the stomach, extended to the absorbents or kidneys, according to the affinity of the article to the one or other of these parts.

Mild Diuretics.—Of this class of medicine, nitre, by reducing the force of circulation, will be found eminently useful in febrile cases. Dose, ten or fifteen grains, for adults, every two or three hours. Conjoined with camphor, as in the camphorated powders, its diuretic effects, in some cases, is increased.

Dulcified Spirits of Nitre.—Dose for adults, half an ounce, every three or four hours. Unless this medicine be given in large doses it will excite perspiration, rather than act as a diuretic.

It is chiefly valuable in the cases of children. There is, indeed, scarcely any medicine which, in their complaints, we can substitute in its place, and it may be given to them, in the same proportion even in the earliest periods of life.

Cream of Tartar.—Dose for adults, half an ounce, dissolved in a pint and a half of water, to be taken throughout the course of the day. It must be gradually increased, as the stomach becomes accustomed to it.

Of all the diuretic medicines, this is perhaps most fitted to those cases of dropsy which are accompanied with increased or febrile action of the pulse, though it here sometimes operates more effectually when combined with jalap, as in the form of laxative electuary. [*See Cathartics.*] Dose for adults, two teaspoonfuls every three or four hours, where we wish to evacuate large accumulations of fluid, and here an abstinence from drink must be enjoined.

Salt of Tartar—Is considered, by some practitioners, a valuable diuretic, in doses of half a drachm, dissolved in water, three or four times a day. By combining it with the infusion of columbo, or some of the bitter tonics, its efficacy is very much improved. Thus exhibited, it is said to increase the diuretic effect, while at the same time it invigorates the system generally.

Parsley.—The common parsley of our gardens is another valuable diuretic. A strong infusion of the roots in doses of a tea cupful every two or three hours, is well adapted to relieve the ordinary suppression of urine. It is customary to unite with the parsley the seeds of the water melon.

Diuretic Infusion.—Pound a handful of the kernels of pumpkin seeds or melon seeds, with a small quantity of hard white sugar, to a smooth paste; then add a quart of boiling water, and a quarter of an ounce of saltpetre, or half an ounce of sweet spirits of nitre, and rub them well together. This is a pleasant and mild diuretic, particularly useful where the discharge of urine is attended with heat and pain. A tea cupful may be taken every hour or two by adults.

Diuretic Pills.—Take dried squills in fine powder and calomel, each, half a drachm; mucilage of gum arabic, sufficient to form a mass, and then make twenty pills, two of which are to be taken at bed-time. These pills powerfully promote urine, and are very efficacious in carrying off cold, phlegmatic humors, in all dropsical swellings. When the squill alone is given, it may be taken in doses of two or three grains, three or four times a-day, in the form of pills, by adults.

Oil of Juniper.—Dose for adults, ten drops in gruel.—[*See Materia Medica. See also under this head, wild parsley, wild carrot, foxglove, and tobacco.*]

Stimulating Diuretics.—The Spanish fly promotes, as well as restrains, the urinary discharge. Exhibited in a state of excitement, or at any time, in small doses, it most commonly occasions strangury. But taken in a reverse state of the system, or in large doses, it as constantly proves diuretic. Thus, in the weaker forms of dropsy, two, three, or four drachms of the tincture, given in divided doses during the twenty four hours, will produce the most copious evacuations of urine.

EXPECTORANTS.

Expectorants have been defined those medicines which facilitate or promote the excretion of mucus or other fluids, from the pulmonary system.

Expectorants are employed when the mucus is too thin and acrid, when too viscid, or when the excretories are not sufficiently irritable to propel their contents. Where the mucus is thin and acrid, inflammation generally exists, and in such cases mucilaginous drinks, as flaxseed tea, mucilage of gum arabic, or slippery elm, iceland moss, or sirup, liquorice, antimonials, and nauseating medicines are employed. Oils differently prepared, and jellies, are also useful. Independent of inflammation, the mucus is sometimes too thin and acrid, from too great irritability of the vessels of the branchial glands, and we then employ opiates and stimulating medicines, as mustard, horse-radish, seneca, squills, garlic, Indian turnip, meadow saffron, and tobacco. [*See Materia Medica.*] When the expectoration is too viscid, or the vessels not sufficiently irritable to assist the excretion, expectorants, strictly so called, are useful. These are the more stimulating medicines just mentioned; to which may be added all the variety of fœtid gums, and the turpentines, including the balsams. Steams of warm water, impregnated with vinegar, aromatic herbs, and æther, are adapted to the same purpose.

Nitric Lac Ammoniac.—Pour very gradually two drachms of nitric acid, diluted in eight ounces of water, or two drachms of ammoniac, and triturate them in a glass mortar till the gum is dissolved, forming a milky fluid. Of this a table spoonful may be taken every two or three hours in sweetened water. Laudanum in some cases may be usefully added.

Pectoral Mixture.—Gum ammoniac, two drachms; sirup of squills, half an ounce; laudanum, fifty drops; spring water, six ounces. Reduce the gum to powder in a marble mortar and gradually add the water, and triturate till the gum is dissolved, then strain from the impurities and add the other articles. Dose, a table spoonful every two or three hours, for adults.

Or, take of sweet oil, one ounce; rain or soft water, half a pint; salt of tartar, five grains; white sugar, half an ounce. Dissolve the salt of tartar and the sugar in the water, and afterwards add the oil, when, by agitating the phial, a mixture will be formed of cream-like appearance. To this add paregoric elixir, half an ounce. Dose, a table spoonful every hour or two.

Pectoral Emulsion.—Take of oil of almonds, or pure sweet oil, one ounce; barley water, six ounces; best white sugar and gum arabic, powdered, of each half an ounce; laudanum, forty drops. Incorporate the sugar and gum arabic together in a mortar with a small quantity of the barley water, then gradually mix the oil and afterwards add, by little at a time, the remainder of the water with the laudanum. One or two table spoonfuls of this emulsion may be taken frequently.

Or, take of the best purified honey and pure sweet oil, each, two ounces; fresh lemon juice, one ounce; sirup and paregoric, each, half an ounce. Mix, to form an emulsion. Dose, a tea spoonful whenever the cough is most troublesome.

Cough Mixture.—Take of paregoric elixir, one ounce; powdered gum arabic, one ounce; simple water, two ounces; sweet spirit of nitre, two drachms; antimonial wine, one drachm. Mix and dissolve. Dose, one table spoonful to be taken whenever the cough is troublesome. But, in the first stage of catarrh, when inflammatory symptoms are present, this and all opiates, are improper.

Or, take of elixir paregoric, one ounce and a half; antimonial wine and sirup of squills, each one ounce; lac ammoniac, four ounces; sirup bal. tolu, one ounce. Dose, half a table spoonful every two or three hours for adults.

Or, take of tincture of opium, one drachm, wine of ipecacuanha, half a drachm; oxymel of squills, half an ounce.—Mix. Dose, for adults, a tea spoonful every two hours while the cough is severe.

Domestic Remedies for Whooping Cough.—Dissolve thirty grains of salt of tartar in a gill of water, add to it ten grains of cochineal finely powdered, sweeten this with fine sugar, and give an infant a tea spoonful four times a-day. To a child of two or three years old, two tea spoonfuls; from four years and upwards, a table spoonful or more may be taken. The relief is said to be immediate, and in general within five or six days.

Or, take equal portions of new milk, and the lie strained from hickory ashes, of which one table spoonful may be given every hour through the day to a child of seven or eight years old.—This remedy is also strongly recommended.

Pectoral Lozenges.—Take of purified opium, two scruples; tincture of balsam of tolu, two drachms; sirup, composed of one part of water, and two parts of white sugar, four ounces; refined Spanish liquorice, previously moistened with a little warm water, so as to make it soft; gum arabic, in fine powder, each, two ounces and a half; emetic tartar, eight grains. Rub the *opium* and the *emetic tartar* with the tincture and the sirup until the former is perfectly dissolved, then add the liquorice, softened with warm water, and whilst beating them together, gradually sprinkle in the gum arabic. Divide the mass into lozenges or *troches;* each weighing ten grains, and exsiccate them gradually in the air. One may be put in the mouth and gradually dissolved, every hour or two when the cough is troublesome.

Nitrous Lozenges.—Take of purified nitre, two drachms; refined sugar, reduced to a fine powder, six drachms; pulverized gum tragacanth, three drachms.—Beat these together with a small portion of water, until they are intimately mixed, and form a coherent mass, which may be divided into moderated sized *troches* or lozenges, to be dried by means of a gentle heat. In cases of quinsy or sore throat, one of these lozenges frequently put in the mouth and suffered gradually to dissolve, will be found very beneficial.

ANODYNES.

Anodynes are medicines which ease pain and procure sleep.

Opium.—Of all the articles of the Materia Medica, this is, perhaps, the most extensively useful, there being scarcely one morbid affection, or disordered condition of the system, in which, under certain circumstances, it is not exhibited either alone or in combination. Opium, the product of the poppy, with some persons, leaves unpleasant effects, and with such, the lettuce opium [*See Materia Medica*] should be employed.

Opiate Pills.—Take of pure opium, and powder of cinnamon or ginger, each, twelve grains; mucilage or sirup sufficient to make them into twelve pills. Dose, for adults, one or two at bed time.

Anodyne Draught.—Take of laudanum, a tea spooful; sirup, two tea spoonfuls; cinnamon, or herb tea, one ounce.—Mix. This to be taken at bed-time by an adult. When laudanum disagrees in the ordinary quantity, it may often be given with much advantage in doses of five or six drops every hour till the proper effect be produced; or it may be given in vinegar, whey, or conjoined with the antimonial wine, as in the form of the anodyne sudorific draught. [*See Diaphoretics.*]

As laudanum is extremely prejudicial to children, it ought not to be administered to them, except under peculiar circumstances. Instead of its internal use, a little of it should be rubbed on the back-bone; or the same effects may be produced by rubbing on that part a tea spoonful of anodyne balsam.

When laudanum is prescribed by way of injection, the proportion must be more than double what can be given by the mouth.

Paregoric.—Dose, for adults, one or two tea spoonfuls, in a cup of tea or gruel.

ANTI-SPASMODICS.

As the causes of spasms differ essentially, the remedies must equally differ. Bleeding, mercury, warm bathing, blister, opiates, camphor, volatile alkali, musk, castor, asafœtida, garlic, æther, wine and spirits, bark, steel, and other tonics, are the remedies usually resorted to.

In the choice of these, we employ the sedatives and fœtids to shorten the fit; and the stimulants and tonics to prevent returns.

Gum Pills.—Take asafœtida, three parts; gum ammoniac, two parts; camphor, one part; beat them very well together, and with as much sirup as is necessary, make into pills of the size of a common pea, from three to five may be taken at a dose, and repeated as often as shall be found necessary; not, however, exceeding three or four doses in a day. This is a powerful antispasmodic, and very useful in all nervous and hysterical complaints. When it is wished to render the mass purgative, which is generally proper, add as much socotrine aloes as of camphor.

CORDIALS.

A glass of wine or a little brandy toddy.

Compound Spirits of Lavender.—Dose, for adults, a tea spoonful on a lump of sugar, to be dissolved in the mouth, and gradually swallowed.

Cordial Mixture.—Take of aromatic spirit of hartshorn, two drachms; compound spirit of lavender, three drachms; cinnamon water, two ounces; spring water, three ounces.—Mix. The dose, for adults, a table spoonful now and then.

Cordial Draught.—Take of volatile tincture of valerian, one drachm; simple sirup, water, of each four tea spoonfuls.—Mix them together. To be taken at once by adults.

Cordial Drops.—Take of paregoric elixir, volatile tincture of valerian, of each equal parts.—Mix them well together. Dose, one tea spoonful in a glass of water, for adults.

For children the best cordial is white wine whey.

STIMULANTS.

In relation to general stimulants, there is a distinction too important to be overlooked. We have a set distinguished by great diffusibility, and which, nearly as soon as exhibited, occasion universal excitement over the body; and there is a second section, by which tone is imparted, though very slowly, and by a long administration. The diffusible are very transient in their effects, while such as are more gradual in their operation, produce *permanent*, or enduring impressions, and are called tonics.

As in the administration of stimulants, we hope to overcome an existing action, by exciting a new and stronger one, it is obvious that they can only be resorted to with any hope of advantage, in the feeble shapes of disease, or in more violent forms, reduced by previous evacuations. But, in determining the exact point at which to commence the use of stimulants, we may also be aided by watching their operation. Being ill-timed, they commonly produce pain in the head, or delirious wanderings, or morbid vigilance, or stricture of the breast, restlessness and anxiety, *with a hot* dry skin, parched tongue, and a quick, small, and corded *pulse*.

In the administration of stimuli, we should endeavor to graduate the article to the state of excitability.

This is a point of infinitely greater importance than is commonly imagined. It is not always the most active article produces the greatest effects. In the low states of disease, we have witnessed, in some instances, more effects from wine whey, than strong toddy. This proceeds from the article being in unison with the condition of the system.

Narcotics.—That the purer narcotics are endowed with a stimulant power, is very satisfactorily proved, by the operation of opium.

Exhibited in a moderate dose, the purer narcotics excite activity both of body and of mind. But to command their stimulant power, they ought to be given in small doses, frequently repeated, and gradually increased, and the excitement which they enkindle is thus sustained. But when the design is to mitigate pain, or to procure sleep, or to relieve irritation, or deaden sensibility, they should be exhibited in a full dose, and at more distant intervals. It should be remembered that the indications chiefly, which narcotics are capable of fulfilling, are to excite and support the actions of the system, to assuage pain, and allay irritation, to relieve spasmodic affections and to induce sleep, and to check the morbidly increased secretions and excretions.

Volatile Sal Ammoniac—In a great variety of febrile affections this medicine has been prescribed, though it is in the low, or typhus fevers, that it is chiefly employed.

In one respect the volatile alkali differs from every article of the class to which it is attached, and, it would seem, from all other medicines. The peculiarity to which we allude is this, that the excitement it raises approaches more nearly to that of healthy action, and hence it may be recurred to earlier than stimulants generally, in the inflammatory affections, and with greater safety in mixed cases so equivocal or obscure, as to render uncertain the propriety of stimulation. It may be given in the shape of a pill or julep, in the dose of five or ten grains, every hour or two, according to circumstances. The best form, however, is the latter, which may be made agreeably to the annexed prescription.

Take of volatile sal ammoniac, two scruples; gum arabic, white sugar, each one drachm; oil of cinnamon, five drops; spring water, five ounces.—Mix. Dose for adults, a table-spoonful every two hours.

Camphor.—No medicine, perhaps, has been prescribed for a greater variety of purposes than camphor. In every modification of febrile action, when approaching to the typhoid state, camphor has been resorted to, and not without success. It excites perspiration, quiets nervous irritation, removes delirium, and abates the force of the disease. Camphor is best exhibited in the form of julep or mixture.

Camphorated Julep, or Mixture.—Take of camphor, one drachm; gum arabic, two drachms; white sugar, half an ounce; water, half a pint. Moisten the camphor with spirits, and after reducing it to a powder, add the gum arabic and sugar, and then by degrees pour on the water, while triturating them together in a mortar. Dose for adults, a table-spoonful every two or three hours.

Or, take camphor, one drachm; myrrh, half a drachm; white sugar, two drachms; spring water, six ounces—Dose for adults, a table-spoonful. The mixture thus made, is perfectly transparent and very palatable. Of late, however, the solution, or rather suspension of camphor in milk, has nearly superseded all other preparations of the medicine in practice. It is made by simple trituration. The dose of camphor is from five to ten grains, to be repeated once in two or four hours, according to circumstances.

Pills of Camphor and Asafœtida.—Take of camphor, asafœtida, each one drachm; moisten the camphor with a few drops of alcohol, unite them together, and make thirty-six pills. It is sometimes advisable to add half a drachm of calomel to the above.

This is an admirable combination as well as camphor united with opium, for that species of mania, excited by frequent intoxication. Dose for adults, two pills every three or four hours.

Spirit of Turpentine.—This is one of the most active and diffusible of stimulants. In the typhus or low fevers, when other diffusible stimuli are given, much may be expected from turpentine. It promptly relieves gout in the stomach, and is particularly suited to periodical colics, arising from flatulence. The dose of the spirit of turpentine, in those cases, is about a drachm, to be repeated, more or less frequently, according to the nature of the disease, and the best mode of giving it is alone, or with a small portion of water. By attempting to blend it with mucilage, or any such vehicle, it seems in some degree to be volatilized, and is thereby rendered more pungent to the fauces, and difficult to swallow.

Aromatics.—Ginger, cinnamon, cloves, nutmegs, allspice, and all the aromatics are more or less stimulant.

Wine.—As a cordial and tonic, wine is often directed in various chronic cases, attended with debility, and also in the convalescence from acute diseases. Compared with ardent spirits, the action of wine is infinitely less injurious in a state of health, and as a remedy in disease, it evinces the same superiority. The effect it produces is slower, and more permanent, combining also qualities which, while they blunt the ardency of the stimulus, afford no inconsiderable portion of nutriment; by which the system is sustained and invigorated. In exhibiting wine we are cautiously to regulate its administration by the effects it manifests, since, urged too far, it might induce indirect debility, and thus cause irreparable mischief. Wine may always be considered as doing good, when it renders the pulse fuller, slower, and stronger, when it removes or lessens delirium, calms irritation, and composes to sleep. But if, on the contrary, it accelerates the pulse, flushes the countenance, increases the temperature of the skin, excites thirst, aggravates delirium, or restlessness, and thus occasions an exacerbation of the disease, the evidence of its injurious tendency is no less decisive, and we should at once withdraw it altogether, or reduce the quantity.

ASTRINGENTS.

Astringent Medicines are employed for checking hemorrhages, and immoderate evacuations of every kind.

Infusion of Roses.—Upon a large handful of dried red rose-leaves, pour a pint of boiling water; let them infuse half an hour.

Infusion of Oak Bark.—Upon a handful of white oak bark, shred fine, pour a quart of boiling water; let it stand one hour, then boil a few minutes.

Infusion of Galls.—Upon a quarter of an ounce of galls, pour a quart of boiling water; let them infuse one hour, then boil for a few minutes. A small quantity of cinnamon adds greatly to the flavour of this and the oak bark; and acidulating any of them with the acid of vitriol, renders it more efficacious; they should be taken cold, to the quantity of half a gill, or a wine-glassful, every hour or two.

Astringent Decoction.—Take of cinnamon, three drachms; Peruvian bark, one ounce; spring water, three pints. Boil these together till only one half remains; then strain off the liquor after it has cooled, and add elixir vitriol, one drachm. Dose, for adults, two ounces thrice a-day.

Astringent Mixture.—Take of the infusion of gall, four ounces; prepared chalk, two drachms; laudanum, forty drops.--Mix. Dose, for adults, a table spoonful every three or four hours.

Or, take of tincture of kino and prepared chalk, each, half an ounce; laudanum, forty drops; boiling water, four ounces.—Mix. Dose, for adults, a table spoonful every two or three hours.

Vitriolic Solution.—Take of white vitriol, three drachms; alum, two drachms; spirit of lavender, half an ounce; boiling water, one pint.—Mix. Dose, for adults, a large table spoonful every morning, on an empty stomach, without diluting it, and in some cases to be repeated every six hours. When evacuations are required, the quantity of alum may be diminished, or even entirely omitted; and when great astringency is required, the quantity of alum is to be increased, and the vitriol to be diminished.

Pills of Sugar of lead, &c.—Take of sugar of lead and ipecacuanha, each, six grains; opium, one grain; sirup, sufficient to form a mass. Divide in four parts; one pill to be taken every three hours, until the hemorrhage ceases.

Anti-Dysenteric Mixture.—Take of lemon juice or best vinegar, two ounces; common salt, as much as the acid will dissolve; strong mint tea, half a pint; white sugar, sufficient to sweeten it.—Mix. Dose, for adults, a wine glassful every two or four hours.

TONICS.

Tonic Medicines are those which increase the tone or strength of the body. In the widest acceptation of the term, this class of remedies are extremely extensive, since it includes every means which invigorates the powers of life. Among the means to overcome debility, or to invigorate the system, is properly regulated diet. The diet should always be accommodated to the state of the system; and whatever may be the nature of the case, the patient should eat much more frequently than the common meals. The stomach has been pronounced, by a very sagacious observer, to be in one respect like a school boy, who is always doing mischief when not employed.

After recovery from acute diseases, it should at first consist of the lightest vegetable matter, and especially the farinacious articles, such as rice, tapioca, arrow root, and sago. To these may succeed eggs, oysters, game, and the white poultry, and finally, ham, beef, and mutton. As a general rule, solid food is preferable to fluids. It is usually more comfortable to the stomach, and restores strength with greater rapidity. In selecting the articles of diet, the palate of the person himself should be consulted, since the pleasure which is received in eating, is of itself no ordinary stimulus, and particularly to a very debilitated system.

Next to diet, in point of efficacy as a tonic, are the warm and cold baths. Though different in temperature, they produce effects not very dissimilar. Each, when judiciously managed, will very rapidly, in many instances, invigorate the body.—[*See pages* 43 *and* 44.]

As a tonic, exercise is undoubtedly among the most decisively useful, and has been divided into two parts, *active* and *passive.*—It is proper, in extreme debility, or in the first stage of convalescence from an acute disease, to begin with the second species.—This consists chiefly of frictions, which may be made with a naked hand, or with a brush, either alone, or with the addition of some stimulating matter. To rub at least once a-day for half an hour or more, the whole body with fine dry salt, creates a universal glow, renders the skin smooth and florid, imparts vigour to the muscles, improves appetite and the powers of digestion, and in all its tendencies is highly salutary. When the patient is able to take exercise, let the mode be adapted as much as possible to the seats of debility or disease; *but be careful of fatigue.*

Medicinal Tonics.—Of this class, nature has been lavish in her supplies. Two of her kingdoms, at least, are exuberant in articles possessed of such powers, viz. the *vegetable* and *mineral.*

Peruvian Bark—Is one of the best strengthening remedies; it may be taken in powder alone, or conjoined with one fourth of the Virginia snake root, in doses of a tea spoonful, five or six times a-day. When the doses are to be frequently repeated, as soon as one is taken, put another, with a small quantity of wine or water, into a glass, by which means it will become equally and universally moist, and may be mixed more easily and more smoothly. As many persons cannot take the bark in substance, it should be exhibited in infusion, or decoction.

Cold Infusion of Bark.—Mix one ounce and a half of bark in powder in a quart of water; let it stand twenty-four hours, occasionally shaking the bottle, and then strain off the liquor. Dose, for adults, a wine glassful every two hours.

Decoction of Bark.—Put two ounces of coarsely powdered bark into a quart bottle of water, which, after being corked, is to be placed in a pot of water, and boiled for two or more hours. This is a very elegant preparation, and one of considerable efficacy. The dose of the decoction, for adults, is a wine glassful every two or three hours.

To correct some inconveniences occasionally produced by the bark, it is frequently combined with other remedies. When it excites vomiting, or oppresses the stomach, cinnamon, or some aromatic, must be added; when it purges, opium; when it induces constipation, rhubarb; and where there is much acidity of the stomach, magnesia, or small portions of the mineral or vegetable alkali. As children cannot be induced to take the bark in sufficient quantities, it should be administered in the form of clysters, united with a little milk or flaxseed tea, to which may be added a little laudanum. Applied externally by means of a bark jacket, [*See page* 220] it will be found to have as salutary an effect as when exhibited internally.

Columbo.—Dose, for adults, in powder, a tea spoonful; to be given in mint tea or water.

Infusion of Columbo.—Take of columbo, bruised, one ounce; boiling water, one pint. Dose, for adults, a large wine glassful every two hours. This bitter is peculiarly serviceable in cases of weak stomachs and bowels, attended with lax, and abounding in bilious crudities.

Infusion of Gentian.—Put half an ounce of gentian, bruised, and two drachms of orange peel, in a pint of cold water for twelve hours, then strain; when used in hot weather, add half a gill of brandy. Dose, for adults, a wine glassful three times a-day. Bitters are properly considered strengthening remedies, when not continued too long; they improve the appetite, and strengthen the stomach and bowels, but a constant and long continued use of them, or any one tonic, is generally prejudicial.

The black oak bark, the dogwood bark, the wild cherry-tree, and thoroughwort, [*See Materia Medica*] claim our attention as tonics.

Mineral Tonics.—Iron, in its operation on the system, evinces all the effects of a powerful and permanent tonic, no medicine, perhaps, leaving behind it such lasting impressions. The indications, therefore, that it is calculated to fulfil, are numerous and important, most of which, however, are embraced within the sphere of chronic debility.

Iron Filings—If made with a fine file, will require no other preparations; the dose, for adults, is six or eight grains, or about as much as a common pinch of snuff, with an equal quantity of powdered ginger, to be mixed in sirup or molasses, and taken two or three times in a day. In this simple form, iron acts as well as in any more laborious preparation. It is a most useful tonic in all pale and relaxed habits, subject to watery swellings; particularly for children of this description, with pale faces and distended bellies, whose complaints are frequently accompanied by worms. The doses for young and old, provided the filings are made with a fine file, may be much the same, as no more acts than what is dissolved. The rust and tincture of steel are employed with the same view.

Tonic Powders.—Take of columbo, in powder, and rust of steel, each, one ounce; unite them well together in a mortar, and then divide into forty-eight doses—one to be taken by adults, thrice a-day.

Tonic Pills.—Add to half an ounce of the tonic powder, a sufficient quantity of mucilage to form a mass, and make pills of an ordinary size. Three or four of them, or the number constituting a dose, to be taken thrice a-day. In cases of debilitated stomach, an equal quantity of powdered ginger may be added to the above.

Chalybeate Wine.—Put rust of steel, one ounce and a half; orange peel and gentian root, each half an ounce, into a bottle of wine. The vessel containing these ingredients is to be exposed to the sun, or near the fire, for three days, and to be repeatedly shaken during this time. This preparation is an excellent stomachic, and agreeable tonic. Dose, for adults, two or three tea spoonfuls thrice a-day.

Blue Vitriol, or Sulphate of Copper.—The fourth of a grain, united to a small portion of opium, given three or four times a-day, gradually increasing the dose, is celebrated as a valuable remedy for obstinate intermittents. White vitriol, in doses from three to five grains, for adults, in the form of pills, is also considered highly useful as a tonic.

Solution of Arsenic.—This is a valuable tonic, and may be given with perfect safety, cautiously administered, to every age.

Pills of Sulphate of Quinine.—Take of sulphate of quinine, twelve grains; mucilage of gum arabic, a sufficient quantity to make twelve pills. Dose for adults, one every hour.

Solution of Sulphate of Quinine.—Take of sulphate of quinine, eight grains; powdered gum arabic, thirty grains; cinnamon or ginger tea, one ounce.—Mix gradually. Dose, for adults, a tea spoonful every hour, observing to shake the mixture just before using it. This is an excellent anti-febrifuge and tonic.

Nitric Acid, as well as *Elixir Vitriol*, given in doses from ten to twenty drops, in a glass of sweetened water, thrice a-day, will be found very pleasant and useful tonics. They speedily quicken the appetite, and restore tone to the digestive organs.

ALTERATIVES.

Alteratives—Are those medicines supposed to correct the acrimony which appears on eruptions of the skin, and in removing venereal complaints. These are almost exclusively mercurials, assisted by the warm bath, sarsaparilla, mezereon, slippery elm, lobelia, [*See Materia Medica*] nitric acid, tar water, &c.

Mercurial Pills.—Take of calomel, one drachm; opium and tartar emetic, each, ten grains; crumbs of bread, a small quantity; sirup, or mucilage of gum arabic, sufficient to form a mass. Divide into forty parts: one pill to be taken night and morning by adults.

Mercurial Solution.—Take of corrosive sublimate, twenty-four grains; laudanum, half an ounce; spirits, one pint and a half. Mix. Dose, for adults, one table spoonful morning and night.

Calomel—In doses of one or two grains, given every night, or every other night, drinking with it the following diet drink.—These, together, make a powerful alterative for blotches on the skin, foul eruptions, and all other cases, in which the object is to remove obstructions, and sweeten the humours. An occasional warm bath greatly promotes their good effects, whilst, at the same time, it contributes to prevent the mercury attacking the mouth, and bringing on salivation, which, during the use of mercury, must be carefully watched and guarded against, by avoiding cold, and suspending the medicine, from time to time, for a few days.

Alterative Diet Drink.—Boil one ounce of the borings of lignumvitæ, and two ounces of split sarsaparilla, in three pints of water until it comes to a quart; then strain it through linen, to be drank in one or two days, by divided doses. The sarsaparilla, which is the least efficacious, is by far the most expensive article in this diet drink, it may, therefore, be omitted, adding in its place half an ounce more of lignumvitæ, or two ounces of parsley roots. In either case, a small handful of stoned raisins, or two or three sliced figs, or half an ounce of liquorice root, will render it more agreeable. .

Nitric Acid, diluted.—Take of nitric acid, two drachms; water, one quart.—Mix. As this acid is not always to be got of equal strength, it would be best to make a quart of water as sour with it as can be drank, which quantity sweetened, may be taken daily by adults, in doses of a wine glassful every hour or two. To prevent its injuring the teeth it should be sucked through a quill, or its sharpness may be obtunded by washing the mouth with milk, or mucilage of gum arabic.

Nitric acid is diffusible in its operations, pervading every part of the system, and imparting more or less vigour to all the functions. It is, hence, an exceedingly useful remedy in a great variety of affections. Of these, perhaps, the most striking are certain forms of inflammation of the liver; to most glandular diseases, it is indeed well adapted. Where there is too much debility to justify the use of mercury, or when it has already been used ineffectually, it is unquestionably the best medicine that can be administered, and therefore should be uniformly employed in such cases.

TINCTURES, ELIXIRS, &c.

Laudanum.—Take of purified opium, two ounces; brandy, two pints. Digest for eight or ten days, frequently shaking the bottle, then strain off the tincture.

Tincture of Rhubarb.—Take of rhubarb, three ounces; lesser cardamom seeds, or ginger, bruised, half an ounce; brandy or rum, two pints. Digest for eight or ten days, and then strain.

Tincture of Bark.—Take of Peruvian bark, powdered, two ounces; orange peel and Virginia snake root, each, half an ounce; brandy or rum, two pints. Digest for eight or ten days, and then strain.

Tincture of Columbo.—Take of columbo root, bruised, three ounces; brandy, two pints. Digest for several days, and strain.

Tincture of Foxglove.—Take of dried leaves of foxglove, one ounce; brandy, half a pint. Digest for a week, and filter through paper.

Tincture of Cantharides.—Take of cantharides, bruised, two drachms, brandy, one pint. Digest for seven or eight days, and strain.

Tincture of Myrrh.—Take of myrrh in powder, one ounce and a half; spirits, one pint. Digest for seven days and strain.

Paregoric Elixir.—Take of purified opium, flowers of Benzoin, camphor, and essential oil of annis-seed, each, two drachms; brandy, two pints. Digest for eight or ten days, frequently shaking the bottle, and then strain the elixir.

Turlington's Balsam.—Take of Benzoin, three ounces; balsam of tolu, one ounce; aloes, half an ounce; brandy, two pints.—Digest for seven days, and strain.

Rheumatic Tincture.—Take of gum guaiac, and vitriolated tartar, in powder, each, three ounces; spirits, two pints. Digest for eight or ten days, and strain. A dose to be taken twice or thrice a-day.

Bitters.—Take of gentian root, two ounces; orange peel, and corriander seeds, each, one ounce; brandy, two pints. Digest for several days, and then strain.

Camphorated Spirits.—Take of camphor, two ounces; brandy, one pint. Mix them together, that the camphor may be dissolved.

Antimonial Wine.—Take of tartar emetic, one drachm; boiling water, two ounces; wine, one pint. Dissolve the tartar emetic in the water, and when cold, add the wine. Dose, for adults, two tea spoonfuls every fifteen minutes, until it excites vomiting. To hasten its operation, the patient should drink freely of warm water. As a diaphoretic, it may be given in doses, from twenty to thirty drops, every two or three hours.

Domestic Remedies for Rheumatism.—Take of sarsaparilla and walnut shells, each, half a pound; antimony, half an ounce suspended in a bag; water, three quarts. Simmer slowly by the fire down to two quarts. Strain and use a pint in broken doses daily.

Or, take a large handful of rattle-snake root, bruised; spirit, one quart; let it steep by the fire for several days, frequently shaking the bottle. Of this a wine-glassful is to be taken night and morning.

Saturated Solution of Arsenic.—Take of arsenic, in powder, about one drachm; water, half a pint. Boil it for half an hour in a Florence flask, or in a tin sauce-pan, let it stand to subside, and when cold, filter it through paper. To two ounces of this solution, add half an ounce of spirit of lavender. A dose to be taken twice or thrice a-day.

Lime Water.—Pour two gallons of water, gradually, upon a pound of fresh burnt quick-lime, and when the ebullition ceases, stir them well together; then suffer the whole to stand at rest till the lime has settled; after which strain off the clear liquor, and keep it in vessels closely stopt. Calcined oyster-shells may be used instead of quick-lime.

Tar Water.—Pour a gallon of water on two pounds of tar, and stir them strongly together with a wooden rod. When they have stood to settle two days, pour off the water for use.

Caustic Alkali, or Soap Lees.—Mix two parts of quick-lime, with one of pot ashes; and suffer them to stand till the lixivium be formed, which must be carefully filtrated through paper before it be used. If the solution does not happen readily, a small quantity of water may be added to the mixture.

Itch Lotion.—Take of corrosive sublimate, one drachm; crude sal ammoniac, two drachms; water, one pint and a half.—Mix.

Solution of Crude Sal Ammoniac.—Dissolve half an ounce of crude sal ammoniac in one pint and a half of cold water, and then add half a pint of vinegar.

Saturnine, or Lead Water.—Take of sugar of lead, two drachms; vinegar, one ounce; water, one pint and a half.—Mix.

WARM AND DISCUTIENT LINIMENTS.

Opodeldoc.—Take of castile soap, powdered, three ounces; camphor, one ounce; brandy, one pint. Digest the soap, in the spirit by the fire until it is dissolved, and then add the camphor.

Volatile Liniment—Is made by mixing one part of spirit of hartshorn with two of sweet oil, good hog's lard, or fresh butter from the churn; they should unite into a uniform, white, soapy mixture; and if they do not, it is owing to the spirit of hartshorn not being sufficiently caustic. When lard or butter are made use of, they should be first melted; they may then, like the oil, be mixed with the spirit of hartshorn, by shaking them together in a phial.

Camphorated Oil.—Take of camphor, half an ounce; olive oil, two ounces. Moisten the camphor with a little spirit, and then rub it in a mortar with the oil until dissolved.

Anodyne Liniment—Is prepared by adding half an ounce of laudanum to two ounces of either of the above liniments.

Mindererus' Spirit—Applied warm, by means of a soft flannel, very powerfully tends to discuss an incipient tumour, or other inflammatory swellings.

Ether.—Pour about a tea spoonful into the hollow of the hand, and immediately apply it over the part affected, keeping the hand on the part until the ether be evaporated, or as long as the patient can bear the heat it excites. No remedy so suddenly and effectually removes cramps and all spasmodic pains.

Warm Plaster.—Take of the gum plaster and Burgundy pitch, each, one ounce; of blistering plaster, one quarter of an ounce; melt and mix them together. This is a most useful application whenever it is required to keep up a constant *perspiration, and* gentle irritation of the skin, over any particular part affected with rheumatism, or any internal pain, unattended with external inflammation.

Charcoal Powder.—Put lumps of charcoal a second time into the fire until they are red hot; then take them out, and as soon as they become cool, blow off the external ashes, and immediately reduce them to a fine powder, which must be kept in a corked bottle. This powder is admirable for correcting bad breath, as well as arresting the progress of mortification.

EYE WATER.

Take of vinegar, one ounce; spirits or brandy, half an ounce; rose or spring water, half a pint. The strength may be diminished or increased, according to circumstances. This is a useful application to weak, watery eyes, or to remove the pain and sense of pricking, experienced in the globes of the eyes, after they have been fatigued by close attention to some one object.

Another.—Take of sugar of lead and white vitriol, each, twenty grains; spring water, half a pint.—Mix. After the sediment is formed, pour off the clear liquor, with which wash the eyes repeatedly during the day, and at bed-time apply a thick fold of linen or cotton rag moistened with it, over the eyes.

Another.—Take of corrosive sublimate, from two to four grains; water, half a pint.—Mix. This solution may be used in general with great advantage in syphylitic or scrophulous cases, where the eyelids have been long affected with chronic inflammation.

ASTRINGENT WASHES.

Take of lime water, half a pint; brandy, four ounces.—Mix.

Or, lime water, half a pint; corrosive sublimate, fifteen grains. Mix.

Or, lime water, half a pint; tincture of myrrh, one ounce.—Mix.

Or, make a solution, either of lunar caustic, or blue vitriol in water, of sufficient strength to produce a little smarting. To be applied on lint to the sore.

Solution of Kali.—Dissolve from one to two drachms of salt of tartar in half a pint of water. To be applied as above.

GARGLES.

Common Gargle.—Take of barley water, or flax-seed tea, half a pint; crude sal ammoniac, one drachm.—Mix.

Or, sage tea, half a pint; vinegar, half an ounce; nitre, one drachm; honey, one ounce.—Mix.

Or, take of decoction of barley, one pint; nitre, six drachms; honey, three ounces.—Mix. These are mild, cooling applications, and very serviceable at the commencement of inflammatory affections of the tonsils and fauces.

Gargle of Borax.—Take of borax, two drachms; flax-seed tea, or mucilage of quince-seed, six ounces; honey, one ounce. The borax gargle is very much in use as a mild detergent in apthous affections in children, and for removing superficial inflammatory ulcerations of the gums; especially if attended with a copious secretion of saliva.

Linseed Gargle.—Take of flax-seed tea, twelve ounces; honey, two ounces; elixir vitriol, half a drachm. Where mild astringents are indicated, this gargle will be found to answer very well.

Astringent Gargle.—Take of sage tea, or infusion of roses, half a pint; vinegar and honey, each, two ounces; alum, half a drachm.—Mix.

Or, infusion of oak bark, half a pint; honey, one ounce; alum, half a drachm.—Mix.

Detergent Gargle.—Take of astringent gargle, half a pint; tincture of myrrh, from half an ounce to an ounce.—Mix.

Or, take of corrosive sublimate, three grains; dissolved in spirit of wine, half an ounce; and then add decoction of bark, six ounces; tincture of myrrh, half an ounce; honey, one ounce. Mix. In venereal cases, of long standing, the tonsils and uvula, or part of the fauces, are found in a state of ulceration; in which case, besides the internal administration of mercury, the parts should be frequently washed with the above gargle.

INJECTIONS FOR GONORRHŒA.

Take of white vitriol and sugar of lead, each, one scruple; mucilage of gum arabic, or common water, half a pint.—Mix, and after standing ten or fifteen minutes, strain off the clear liquor. An ordinary syringe full, to be thrown up the urethra six or eight times a-day, after making water.

Or, dissolve fifteen or twenty grains of white vitriol in half a pint of mucilage of gum arabic or water. To be used as the above.

Or, dissolve one grain and a half of corrosive sublimate in half a pint of water. To be used as above.

Or, take of mercurial ointment, one drachm; sweet oil, one ounce.—Mix. This injection should be warmed previously to using.

These injections may be made weaker or stronger, according to circumstances. The first and second injection are decidedly the best in recent cases.

When the scalding of urine is troublesome, four drops of muriatic acid to two ounces of water, or one part of acetated ammonia, to eight or ten of water, are often useful as injections.

In obstinate cases of gonorrhœa the mercurial injections, as above, will be found most beneficial: and in obstinate gleets, the following have been employed with very happy effects.

Injection of Tea.—Take of green tea, one drachm; boiling water, six ounces; macerate in a close vessel till cold, and strain.

Or, take of kino in powder, two drachms; alum, one drachm; mucilage of gum arabic, one ounce; spring water, one pound.—Mix and strain.

Injection of Capivi.—Take of balsam capivi, one drachm; mucilage of gum arabic, half an ounce; rose or spring water, six ounces. Rub the capivi and mucilage well together, and add the water. This, as well as the preceding injection, is perhaps better fitted for females, when a discharge is kept up from a relaxed state of the folds of the vagina, whether arising from gonorrhœa, from too frequent coition, or from the fluor albus, or whites.

At the commencement of gonorrhœa, the irritation is often so great as to occasion the greatest possible distress; the urethra then being so exquisitely sensible that the slightest distension of its orifice or canal, even by fluids of the blandest nature, gives the most exquisite pain. The urine, in such cases, is scanty and high coloured, and whenever it is passed, aggravates all the symptoms, leaving an increased desire to pass more urine, attended with a burning smarting pain. The intention of cure, then, would be to lessen the inflammation of the parts, by removing the distention, and of diminishing the stimulating properties of the urine. With this view, besides evacuating medicines and diaphoretics, particularly, the camphorated powders and leeches, should be applied to the under part of the urethra along its whole course, and cold saturine applications to the penis.

CLYSTERS.

Simple and Emolient Clysters.—Milk and water in equal parts. Flax-seed tea. Mallow tea. Infusion of quince-seed. Barley water. Mucilage of gum arabic, or slippery elm. Thin starch. From half a pint to a pint of either of these should be administered a little more than milk warm. They are useful and efficacious where mere relaxing and emollient effects are required; the addition of the mucilaginous substances will occasion them to be longer retained than simple water would be, and are particularly proper when any irritation or remarkable tenderness of the intestines exists: with the same intention, a table spoonful of good sweet oil, fresh hog's lard, or fresh butter from the churn, may be added; but unless perfectly fresh, should be omitted, as the least rancidity will irritate and injure.

Common Clyster.—Take of barley water, or flax-seed tea, from one to two pints; sweet oil, two or three ounces; glauber or Epsom salts, one or two ounces.—Mix.

Or, take of warm water, one pint or more; molasses, one gill, or brown sugar two table spoonfuls; hog's lard, one spoonful, or sweet oil, two ounces.—Mix. This quantity is intended for adults.

Stimulating Clyster.—Common salt and brown sugar, each two large table-spoonfuls; hog's lard, two table-spoonfuls; or olive or castor oil, four ounces; water, one pint.—Mix.

Or, take of senna, one ounce; spring water, two pints. Boil them till a pint only remains; and, to the strained liquor, add common salt and hog's lard, each two table-spoonfuls.—Mix.

Turpentine Clyster.—Take of turpentine, half an ounce; the yelk of an egg; flax-seed tea, or solution of gum arabic, ten ounces. Rub the turpentine with the egg till they are perfectly incorporated, and add the linseed infusion. The turpentine injection has frequently been of service in suppression of urine, arising from a stone in the bladder.

Anodyne Clyster.—A gill of new milk, or thin starch, or the same quantity of any of the mucilaginous substances enumerated under the head of Simple and Emollient Clysters, with the addition of one or two tea spoonfuls of laudanum, for adults. In general, a patient will bear three times the quantity of laudanum administered in this way, than would be a proper dose when taken into the stomach; so that, to procure rest, twenty-five drops would be given in a draught, seventy-five may be administered in a clyster, and the sickness, and other ill consequences, which some persons complain of after laudanum taken into the stomach, seldom follow when it is administered by clyster.

Nourishing Clysters—May be formed by adding to a gill or half pint of beef tea, arrow-root, or gruel, twenty or thirty drops of laudanum. The addition of laudanum is made to prevent the clyster from being rejected.

OINTMENTS.

Simple Ointment.—Take of olive oil, five parts; white wax, two parts. Mix them together, by a slow fire, and stir until it is cold.

Saturnine Ointment.—Take of sugar of lead, two drachms; white wax, two ounces; olive oil, half a pint. Rub the sugar of lead, previously powdered, with some part of the olive oil; then add it to the wax melted with the remaining oil, and stir the mixture until it be cold.

Basilicon Ointment.—Take of rosin and bees-wax, each, one pound; hog's lard, one pound and a half. Melt them together by a slow fire, and strain the mixture while hot.

Turner's Cerate.—Take of calamine prepared, yellow wax, each half a pound; hog's lard, one pound. Melt the wax with the lard, and as soon as the mixture, exposed to the air, begins to thicken, mix with it the calamine, and stir the cerate until it be cold.

Mercurial Ointment.—Take of quick-silver, half a pound; mutton suet, the more rancid the better, or old mercurial ointment, one ounce; hog's lard, one pound. Triturate the mercury with the prepared suet and a small portion of the lard, till the globules perfectly disappear; after which add the remainder of the lard, and let the whole be intimately mixed. It is requisite that the trituration be constant and uniform, and continued in the first instance, till the globules are perfectly extinguished, and afterwards till the ointment is intimately mixed. If a small quantity of old mercurial ointment, or rancid lard, be employed, the extinction of the quick-silver is much more rapid and effectual. This ointment is principally employed, with the intention of introducing mercury in an active state into the circulating system, which may be effected on the sound skin of any part by gentle friction, particularly on the inside of the legs and thighs. Camphor, in the proportion of a drachm to an ounce of the ointment, is sometimes added, in order to render this application more stimulating and to promote the absorption of mercury.

Hemorrhoidal Ointment.—Take of galls levigated, two parts; hog's lard, eight parts.—Mix.

Tar Ointment.—Take of tar and mutton suet, each, one pound. Melt them together, and strain through coarse linen. This is much extolled for removing tettery eruptions, and for curing scald-heads.

Itch Ointment.—Take of hog's lard, two ounces; sulphuric acid, two drachms. This ointment should be formed in a Wedgewood's, or glass mortar. It is said to be an effectual cure for the itch.

Blistering Plaster.—Take of wax, rosin, tallow, and cantharides, each, equal parts. Having melted the three first ingredients together, sprinkle and mix in the flies powdered a little before they become firm. When the blistering plaster is not at hand, its place may be supplied by sprinkling the flies over any ointment or paste, spread thin, on leather or cloth.

CATAPLASMS AND POULTICES.

Cataplasm of Alum, commonly called Alum Curd—Is made by briskly agitating the whites of two eggs with a lump of alum till a coagulum is formed. It is useful in some cases of opthalmia, when attended with a watery excretion, if applied to the eye between two pieces of thin linen rag. The alum curd has been found an efficacious remedy applied to chilblains, previous to the skin cracking and becoming sore.

Cataplasm of Mustard.—Take of good mustard and flour, or crumbs of bread, each, equal parts; sharp vinegar, sufficient to form a poultice. It may be rendered more stimulating, if necessary, by the addition of a little garlic or horse-radish.

Cataplasm of Common Salt.—Take of linseed, or Indian meal, and crumbs of bread, each, equal parts; saturated solution of common salt, sufficient to make a poultice. This form of poultice has lately been brought into considerable repute for the reduction of indolent strumous swellings and enlargements of the glands. After being some time used, it generally occasions very considerable redness upon the surface, and excites, not unfrequently, so much inflammation upon the part to which it is applied, that it becomes necessary to abstain from its use, and substitute the common white bread and milk poultice in its stead; as soon, however, as the inflammation subsides, the saline poultice should again be employed; and by alternating this mode of practice, strumous swellings, and scrophulous enlargemets, of a chronic obstinate nature, have very frequently been totally dispersed.

Saturnine Poultice.—Crumbs or slices of bread are to be soaked in lead water, which are afterwards to be simmered in an earthen vessel, over a gentle fire, to a due consistence. To superficial inflammations, this form of cataplasm, or making a dough of corn meal and lead water frequently repeated, are very beneficial.

Milk and Bread Poultice.—This poultice, which is generally in use, is commonly made by soaking crumbs or slices of bread in milk, and simmering them together over a gentle fire till they are reduced to the proper consistence of a poultice. The whole is then to be beat smooth with a spoon, and applied as warm as the patient's feelings will readily admit, which should be repeated every four hours.

Flax-seed Poultice.—Take of flax-seed bruised, half a pound; boiling water, half a pint, to be formed into a poultice.

Or, This poultice may be made by stirring linseed powder into boiling water, in quantity sufficient to form it of a proper consistency.

Carrot Poultice.—Boil any quantity of fresh carrots till they are sufficiently soft to be beat into a smooth, even pulp, which is to be applied as a poultice. This has been found very effectual for sweetening cancerous sores and foul ulcers, thereby rendering the condition of the patient much more comfortable. Turnips used in the same way have been found to produce the same effects, and apparently in a greater degree than carrots.

Charcoal Poultice.—To a sufficient quantity of the bread and milk, or linseed poultice, stir in as much charcoal in fine powder as it will bear, and let the whole be well mixed. This cataplasm is often used to sweeten foul offensive ulcers and venereal sores, and for this purpose it is of great service; it will, likewise, often dispose them to assume a more favourable and healthy aspect.

GLOSSARY;

OR,

EXPLANATION OF TECHNICAL TERMS.

ABDOMEN, the belly.

Abortion, miscarriage.

Abscess, a tumour containing matter.

Absorbents, medicines to correct acidity and absorb or dry up superfluous moisture.

Abstemious, low living.

Accelerate, to quicken.

Acescent, having a tendency to acidity.

Acidulated, impregnated with acids.

Acme, full height.

Acrid, sharp and corrosive.

Acute, this term is applied to a disease which is violent, and tends to a speedy termination.

Adult, of full age, beyond puberty.

Affinity, likeness, resemblance.

Affusion, pouring one thing on another.

After-birth, or *placenta-cake*, is the substance by which the child is connected with the mother in the womb.

After-pains, see grinding pains.

Ague-cake, enlargement of the spleen.

Alcohol, retified spirits of wine.

Aliment, nourishment.

Alimentary canal, or *tube*, the stomach and intestines.

Alkali, any substance which mingled with acid, produces fermentation.

Alternate, branches or leaves, or flowers, springing out regularly one above another.

Alternate, changed by turns.

Analogous, one like another.

Annual, living only one year.

Anodyne, composing medicines, and such as mitigate pains.

Antidote, a medicine to destroy poisons.

Antifogmatics, drams.

Antipathy, an aversion to particular things.

Antiphlogistic, counteracting inflammation.

Antiscorbutic, good against the scurvy.

Antiseptics, medicines to correct putridity or rottenness.

Antispasmodic, whatever tends to prevent or to remove spasm.

Antispasmodics, medicines for curing spasms, as laudanum and ether.

Anus, the fundament.

Aperient, opening.

Aphthous, resembling the thrush.

Areola, the circle which surrounds the nipple on the breast.

Aromatic, spicy, pungent.

Artery, a conic canal, conveying the blood from the heart to all parts of the body.

Astringents, medicines to correct looseness and debility.

Atmosphere, surrounding air.

Attenuants, medicines for reducing the body.

Ataxic, irregularity of the symptoms, or of the animal functions,

BIENNIAL, continuing alive for two years.

Bile, or *gall*, a fluid secreted by the liver into the gall-bladder, & thence discharged into the intestines for the purpose of promoting digestion.

Bougie, a taper body, introduced into a passage or sinus, to keep it open or to enlarge it.

Bolus, a form of medicine in a mass, larger than pills.

Bulbous root, as garlic and onion; it is either.

  Solid as in the tulip and turnip,
  Scaly as in the lily,
  Coated as in the onion.

CALCULOUS, stony or gravelly.

Callous, hard or firm.

Cantharides, the spanish flies, used in blisters.
Capillary, fine, hair like.
Capsule, a dry hollow vessel containing the seed or fruit.
Carious, rotten, applied principally to the bones and teeth.
Carminatives, medicines for dispelling wind.
Cataplasm, a poultice or soft plaster.
Catarrh, a discharge from the head or throat.
Cathartic, a purge.
Catheter, a pipe to draw off urine.
Catkin, a composition of flowers and chuff on a long, slender thread shaped receptacle, the figure of the whole resembling a cat's tail.
Caustics, burning applications.
Cautery, the act of burning with a hot iron or caustic.
Cutaneous, of or belonging to the skin.
Characteristic, a mark, sign, or token.
Charcoal, a coal made by burning wood under turf.
Chronic, lingering disease, in opposition to acute.
Chyle, a milky fluid separated from the aliment in the intestines, mixing with and forming the blood.
Circulation, the motion of the blood, which is propelled by the heart through the arteries, and returned by the veins.
Clammy sweats, cold, glutinous.
Cleansing, see *lochial discharge.*
Coagulum, a curd.
Comatose, inclined to sleep.
Compress, several folds of linen rags, a bandage.
Concave, hollowed out like a bowl, as the petals of the cherry or the hawthorn; and the broad-leaved plantain.
Cone, or *strobile*, a species of seed vessel formed by a catkin with hardened scale; containing a seed within the base of each scale; as in the pine or fir.
Confluent, running together.
Constipation, obstruction, costiveness.
Contagion, infectious matter.
Contusion, a bruise.
Convalescence, recovery from sickness.
Convex, opposed to concave: rising like the surface of a globe.
Convulsions, violent motions, fits.
Corolla, blossoms, petals, or flower-leaves, is that beautiful part of a flower which first draws the attention, as the flower itself.
Corroborants, tonics, or strengthening medicines.
Corrosive, substances that consume or eat away.
Cortex, bark, or covering.
Cosmetic, beautifying.
Crisis, a certain period in a disease at which there happens a decisive alteration, either for the better or worse.
Critical, decisive, or important.
Crudity, rawness, indigestion.

DEBILITY, weakness.
Decoction, a preparation by boiling.
Decumbent, lying down, or declining.
Deglutition, the act of swallowing.
Deleterious, poisonous, deadly.
Delirium, light-headedness.
Demoniacal, baneful, hurtful.
Demulcent, softening, sheathing.
Dentition, teething.
Detergent, cleansing.
Diaphoretic, promoting perspiration.
Diarrhœa, a looseness.
Diathesis, disposition or habit of body.
Dietetic, relating to diet, or regimen.
Diluents, substances to dilute or make thin.
Discutient, a medicine that has the power to repel.
Dislocation, a joint put out of place.
Disposition, tendency.
Diuretic, whatever promotes the secretion of urine.
Drastics, active or strong purges.
Dyspeptic, belonging to bad digestion.

ECCYMOSIS, a tumour, the effect of blood-letting.
Efflorescence, eruption, or the redness round it.
Effluvia, exhalation.
Egg-shaped, signifies a shape resembling the solid substance of an egg; or, in respect to leaves, it implies only the form of an egg, divided longwise.
Emaciation, wasting of flesh.
Empiric, a quack.
Enamel, the outside covering of the teeth.
Endemic, a disease peculiar to a certain district.
Enervate; to weaken.
Epidemic, contagious.
Equilibrium, equal weight.

Eructation, a belch.
Eruption, breaking out in pustules.
Exacerbation, the increase of a disease
Excoriation, the loss of skin.
Excretion, discharge of animal fluids, or matter.
Exhibit, to administer.
Expectoration, a discharge from the breast.
Extremities, arms and legs.

FÆCES, excrements.
Farinaceous, meally.
Febrifuge, removing fever.
Febrile, feverish.
Fetid, of an offensive smell.
Fibrous, composed of small threads or fibres.
First passages, stomach and bowels.
Flatulent, producing wind.
Flooding, an overflow of the menses.
Fœtus, the child in the womb.
Fomentation, partial bathing, by the application of flannels dipped in liquids.
Fracture, a broken bone.
Friction, the act of rubbing.
Fungus, proud flesh.
Fumigation, a vapour raised by burning.

GANGRENE, a feeble circulation. followed by mortification.
Gargle, a wash for the mouth & throat.
Germen, or seed-bud, the lower part of a pistil, is destined to contain the embryo seed.
Genus, the second subdivision of plants; it comprehends an assemblage of species under the same class and order.
Gland, a secretory organ.
Glutinous, gluey, sticky.
Grinding, or *after-pains:* pains that occur after labour.
Grog-blossoms, pimples on the face produced by drinking.

HEART-SHAPED, a term used to express the form of a petal or leaf which resembles a heart divided lengthwise.
Hectic-fever, a slow consuming fever generally attending the absorption of purulent, or other acrid matter into the blood.
Hemorrhage. a discharge of blood.
Hemorrhoidal, relating to the piles.
Hepatic, relating to the liver.
Hypochondriacal, melancholy, very dejected, low in spirits.

ICHOR, a thin watery humour.
Imbecility, debility, weakness.
Immersion, plunging under water.
Imposthume, a collection of purulent matter.
Inanition, emptiness.
Incarnating, healing.
Incrassate, to thicken.
Indented, the edges of an indented leaf are hollowed, or deeply scolloped, the lobes standing assunder, as if part of the leaf had been cut out, The leaf of the oak or turnip are familiar examples.
Indigenous, native to a country.
Indigestible, difficult of digestion.
Induration, hardening.
Indisposition, a disorder of health.
Inebriety, drunkenness.
Infection, contagion.
Inflammation, an increased action in the part.
Inflated, distended, as if inflated like a blown up bladder.
Infusion, steeping any thing in liquor without boiling, as tea is made.
Inhale, to draw in by breath.
Inspissate, to thicken.
Intestinal, belonging to the intestines, or guts.
Intestines, the internal parts of the body.
Irrespirable, unfit to be breathed.
Irritability, a disposition to contract from a stimulus.
Juleps, mixtures of simple and compound mixtures.

LACTEALS, vessels conveying chyle.
Languor, want of strength or spirits.
Lateral growing from the sides of the stems or stalks.
Laxatives, relieving costiveness.
Levigated, reduced to a fine powder.
Ligature, a bandage, any thing tied round another.
Ligneous, woody.
Liniment, a composition of the consistence of oil.
Lobed, divided or lip-shaped,
Lotion, a wash.
Lochial discharge, or *cleansings*, a discharge from the womb.

MAGNUM DEI DONUM, the great gift of God.

Mastication, act of chewing.
Maturity, of full years.
Meconium, the infant's first or black stools.
Membrane, a web of fibres, interwoven for covering certain parts.
Menses,
Menstruation, } the monthly courses.
Mephitic, suffocating, noxious.
Meum et tuum, mine and thine.
Miasmata,
Miasma, } morbid exhalations, or vapours.
Miliary eruption, an eruption of pustules resembling the seeds of millet.
Modus operandi, mode of operation.
Morbid, diseased. corrupt.
Mucilage, a glutinous, slimy substance.
Mucus, resembling the matter discharged from the nose, lungs, &c.

NARCOTICS, medicines producing torpor and sleep.
Nausea, an inclination to vomit.
Nervous, irritable.
Nostrum, a patent or other medicine. the composition of which is kept secret by the proprietor.
OBLONG, considerable longer than broad, and narrowed though rounded at the ends; as the leaves of the daisy.
Obtund, to blunt.
Ædematous, swelled, as in a dropsical state of skin.
Opiates, medicines which promote sleep as opium.
Ophthalmia, a disease of the eyes.
Ovate, or *oval*, egg-shaped.

PANCREAS, the sweet bread.
Paralytic, relating to palsy.
Paroxysms, a periodical fit or attack.
Pectoral, medicines adapted to cure diseases of the breast.
Pedical, a short foot stalk, or partial fruit-stalk, being that part of a compound or branched fruit-stalk, which is the immediate support of a single flower, or floret.
Pelvis, the bones at the lower part of the trunk of the body.
Perennial, continuing for several years; at least more than two, and regerminating several years successively.
Pestilential, infectious.
Petals, the leaves which constitute the blossoms or flowers are so called to distinguish them from the other leaves of the plant.
Phlegmatic, relaxed and abounding with phlegm.
Phlogistic, inflammatory.
Phthisical, consumptive.
Pilch, napkin, clout.
Placenta-cake, see *after-birth.*
Plethoric, of a full habit.
Plenitude, fulness of blood.
Precarious, doubtful, uncertain.
Predisposition, susceptibility of disease.
Premature, too hasty, too early.
Preternatural, unusual, not natural.
Primary, original.
Prolapsus, the falling down or out.
Proximate cause, the immediate cause of disease.
Ptyalism, a copious flow of spittle.
Puerperal, of, or belonging to child-bed.
Pulmonary, belonging to the lungs.
Purulent, matter of good quality.
Pus, matter.
Pustule, a purple or small swelling.
Putrescence, rottenness.

QUARTAN, returning every fourth day.
Quickening, the motion of the child felt by the mother in the womb.

RECTUM, the strait gut in which the fæces are contained.
Red gum, an eruption so called.
Refrigeration, a chill, coldness.
Regimen, regulation of food, air, exercise, &c.
Remote cause, the inducing cause of disease.
Repletion, the act of filling the body with food.
Resolution, a termination without suppuration.
Resolvents, dissolving medicines.
Respiration, the act of breathing.
Resuscitation, reviving, bringing to life.
Retention, the retaining some natural discharge.
Rheumy, an acrid discharge.

SALINE, consisting of salt.
Saliva, spittle.
Sanative, healing.
Sanguiferous, carrying blood.
Saponaceous, soapy.
Saturnine Lotion, lead water.
Scorbutic, of, or belonging to scurvy.
Scrofulous, of, or belonging to the king's evil.
Secondary, not primary; a secondary fever is that which occurs after a crisis

Secretion, the separation of fluids from the body.

Secundines, the placenta, and membranes.

Sedatives, composing medicines.

Segments, the small part of a leaf, cup, or petal, included between the incision.

Semen, the seed.

Serous, thin, watery.

Serrated, notched like a saw.

Sinapism, a poultice made of flour, mustard and vinegar.

Slough, the parts that separate from a sore.

Solitary, only one in a place; as but one flower on a fruit-stalk, or only one fruit-stalk proceeding from the same part of a plant.

Soluble, loose, laxative.

Spasm, cramp, convulsion.

Specific, an infallible remedy.

Spear-shaped, applied to a leaf, signifies that it is shaped like a spear or lance.

Spherical, globular.

Spike, a head or ear, as in rye, barley, wheat, &c.

Spine, the back-bone.

Stamina, the constitution or habit of body.

Stimulants, irritative, medicines.

Stomachics, medicines for the stomach.

Strangury, a difficulty of making water.

Striated, channelled, furrowed.

Stupor, a suspension of sensibility.

Styptic, a medicine stopping the discharge of blood.

Sudorifics, medicines to promote sweating.

Suppository, a candle, or any other substance or composition, introduced into the rectum to procure stool.

Swooning, fainting.

Symptomatic, a disease not primary, but arising from another in contradistinction to idiophatic.

Syncope, a fainting or swooning.

Synocha, inflamatory fever.

TECHNICAL, belonging to arts.

Temperament, a peculiar habit of body.

Temperature, state of the air.

Tertian, returning every third day.

Tetany, the lock-jaw.

Tonic, bracing, strengthening.

Topical, local, confined to the diseased part.

Tumour, a swelling.

Turgescence, an over fulness.

Type, a mark.

Typhus, a genus of fever comprehending those called nervous, yellow and putrid.

ULCER, a sore, generally ill-conditioned.

Umbel, a composition of flowers, in which a number of slender fruit-stalks proceed from the same centre, and rise nearly to the same height, so as to form a regular surface at the top. Hemlock, carrot, and low parsnip, are examples. These are said to be umbelliferous plants.

Umbilical cord, the navel string.

Urethra, the canal which conveys the urine.

Uterine, belonging to the womb.

Uterus, the womb.

Uvula, the palate.

VACCINE, vaccinous, belonging to, or matter of the cow-pox.

Vagina, the passage to the womb.

Valetudinarian, a weak sickly person.

Variolus, small-pox matter.

Vascular, belonging to the vessels.

Vehicle, a liquor to make medicines in.

Venous, belonging to the veins.

Ventilation, a free admission or motion of air.

Venomous,
Virulent, } poisonous.

Vermifuge, worm-dispelling medicines.

Vertigo, giddiness.

Vesicating, blistering.

Villous, shaggy, rough, hairy.

Virous, poisonous matter.

Viscera, the entrails.

Viscid, glutinous, tenacious.

Vital, the seat of life.

WHITES, the discharge from the womb.

Whorls, this term is applied either to branches, leaves, or flowers, when they grow all round their respective stems, resembling, in some measure, the spokes round the nave of a wheel.

TABLE OF ERRATA.

Many errors, which occurred in former editions, have been corrected in this; yet, in consequence of having employed different printers, in order to hasten its progress, some typographical errors have crept into the present edition.—The following have been observed, which the reader will please to correct.

Between pages 42 and 44, for 34, read 43.
Page 216, line 1 at top, for information, read *inflammation.*
218, line 11 from bottom, for systoms, read *symptoms.*
231, line 5 from the bottom, for reigmen, read *regimen.*
232, line 2 from the bottom, for ess, read *less.*
240, line 13 from the bottom, after the words, at a low, supply, *price.*
248, line 2 from top, for dash, read *dashed.*
254, line 11 from bottom, for in, read *is.*
260, line 15 from top, for tyhus, read *typhus.*
265, line 4 from top, for unusually, read, *usually.*
270, line 16 from top, for it, read *he.*
271, line 15 from top, for charge, read *change.*
271, line 14 from bottom, for cirtical, read *critical.*
372, line 26 from bottom, for "dimitatis domina," read *dimittis domine.*
272, line 6 from bottom, for "and held," read *are held.*
Between pages 715 and 717, for 176, read 716.

MEDICINE CHESTS.

The Author notifies the patrons of the "MEDICAL COMPANION," that, for their accommodation, he will henceforward keep on hand MEDICINE CHESTS, prepared on an improved plan, particularly adapted to accompany this work.

The chests are divided into six rows, and when opened, display their bottles, of various sizes, all handsomely labelled, and rising one above the other, as if placed on shelves.

The first row presents six pint bottles, containing Antimonial Wine--Paregoric—Opodeldoc—Castor Oil—Rheumatic Tincture—and Tincture of Rhubarb.

The second row presents seven twelve ounce bottles, containing Calcined Magnesia—Jalap—Rhubarb—Peruvian Bark---Columbo—Prepared Chalk—and Gum Arabic.

The third row presents eight half pint bottles, containing Laudanum—Balsam Capivi—Sirup of Squills---Spirits of Nitre---Spirits of Hartshorn---Nitric Acid—Elixir Vitriol—and Sweet Oil.

The fourth row presents ten six ounce vials, containing Ipecacuanha---Camphor---Nitre—Sal. Tartar---Rust of Steel—Sugar of Lead—White Vitriol---Alum---Borax---and Volatile Sal Ammoniac.

The fifth row presents twelve four ounce vials, containing Essence of Peppermint---Ether---Oil of Sassafras---Spirits of Lavender---Spirits of Turpentine---Solution of Arsenic---Tincture of Cantharides---Tincture of Fox Glove---Tincture of Steel---Tincture of Myrrh---Tincture of Asafœtida---and Turlington's Balsam.

The sixth row presents sixteen vials, of a smaller size, containing Tartar Emetic—Calomel—Opium—Dover's Powder—Powdered Squills—Gamboge—Aloes—Blue Vitriol—Corrosive Sublimate—Red Precipitate—Lunar Caustic—Oil of Wormseed—Oil of Anise-seed—Tooth-ach Drops—Crude Sal Ammoniac—Gum Ammoniac—Antibilious, Assafœtida, and Aloetic Pills.

Besides a large drawer, with divisions, containing scales and weights, mortar and pestle, spatula, lancets, syringes, injection pipes and bags, the various plasters and ointments, Epsom Salts, Senna, Manna, Cream Tartar, Sulphur, Liquorice, Arrow Root, and Sago. Of the Medicines most frequently used, there will be an extra supply enclosed in a box accompanying the chest, together with ingredients for renewing the Tinctures. Thus, making an assortment of Medicines, large enough for domestic purposes, and sufficiently complete, as to furnish an appropriate remedy for every disease. The author also warrants them to be genuine, and it will be found that his price is below the retail prices in any city of the United States.

It is hardly necessary to observe, that all prudent and benevolent persons at the head of families, must feel the duty and importance of keeping such a chest in his family, not only for the great saving of time and expense of sending on every trivial occasion, for a distant physician, but also for the exceeding pleasure of thereby possessing the decided advantage of meeting a disease with a suitable remedy at its first attack; for there can be no doubt that thousands have perished, not because there were no remedies, but because these remedies were at such a distance, that the patient was lost before they could be brought to him. It is a well known fact, that the hero of Stony Point, the brave General Wayne, after his defeat of the Indians on the Miami, was suddenly taken off by a gouty spasm in the stomach, which might easily have been removed, had it been practicable to obtain any ordinary stimulus in due time. What numbers have died miserably of cholera morbus, for lack of a vial of laudanum, with proper directions to use it? How many fond mothers have hung distracted over their children, struggling under the *croup*, or swollen with the poison of *serpents*, when the former might so easily have been cured by an emetic, and the latter by caustic volatile alkali, or lunar caustic. The heart breaking tragedies that occur in families, merely for the want of appropriate remedies in cases of alarming disease, are too frequent not to be fresh in every memory.

It were, therefore, a God-like act in all persons of tolerable circumstances, to keep a medicine chest, not only for the benefit of their own families, but also for their sick and indigent neighbours, who often suffer, and even perish, for want of proper medicines seasonably administered.

These Family Medicine Chests have been inspected and recommended by some of the most distinguished Physicians in our country, stating, on *principles* of *reason*, their exceeding importance to all families. And these their testimonials have been so fully confirmed by *experience*, that the honorable William H. Crawford, Commodore Porter, Governor Sprigg, and many of the most respectable inhabitants in the vicinity of the Metropolis, after full trial of their utility, have often and publicly declared that they would not be without them on any consideration—and even in a pecuniary point of view they have been amply re-imbursed the expense; for that within a few months, during the sickly season, they saved more than double the costs of the chests, and with very little diminution of their contents.

CONDITIONS.

These chests, made of mock mahogany, finely varnished, about two feet long, and nearly as deep, with good locks and keys and strong brass mountings, will be put at the moderate price of $50—Chests made of cherry wood, and handsomely varnished, with double flint glass and ground stopper bottles—$75. Elegant mahogany cases, with glass stopper bottles, of much larger size, $100.

Orders from any part of the United States, will be attended to. And, notwithstanding the profits on the chests are so inconsiderable, as not to justify additional expense; yet, as their dissemination will unquestionably be attended with public benefit, and may hereafter ensure their extensive sale abroad at a liberal price, they will be sent, until the year 1804, without an additional charge, to any of our Sea Port Towns, or to Wheeling or Pittsburgh; and from thence they will be warranted to undergo land carriage any distance, without the breakage of a bottle or injury of the chest.

Washington, Nov. 20th, 1822.

The Public will duly appreciate the value of these ***FAMILY MEDICINE CHESTS*** *on reading the recommendations of the following eminent Physicians.*

I have seen and examined the *Medicine Chests* of Doctor James Ewell, and consider them a valuable acquisition to every family, and very cheap at the price for which they are offered.

JOSEPH KENT, M. D.
of the House of Representatives, U. States.
Washington City, March, 1820.

I have examined, with much attention, the *Medical Chests* offered for sale by Doctor James Ewell of this City. The medicines have been prepared and arranged with much neatness and taste, and have been put up with a strict regard to their safety and preservation. Their genuineness will not be doubted by any acquainted with the well established character of that gentleman, both as a man, and a Practitioner of Medicine. I take pleasure in recommending them to the heads of families in town and country, not only as affording an ample supply of all medicines usually given in the cure of diseases, but as promoting economy in a pecuniary point of view; *for*, it will be found, he sells his Medicine Chests less than the contents of them would cost at the retail prices in any of our Cities, and very considerably less, if furnished by a Medical Practitioner in the common course of practice.

JAMES JONES, M. D.
of the House of Representatives, U. States.
Washington, March, 1820.

Having attentively examined Dr. James Ewell's *Medicine Chests*, I give it as my opinion, that they would be a valuable acquisition to every family.—The Chests are differently constructed, and the Medicines much better arranged than any thing of the kind I have seen, and being particularly adapted to accompany his "Medical Companion," I strongly recommend them to all heads of families.

THOMAS H. HALL, M. D.
of the House Representatives, U. States.
Washington City, March, 1820.

I have examined Dr. James Ewell's *Medicine Chests*, and can say with strict propriety, I have seen nothing of the kind to equal them. The medicines appear to be of the best quality, and the selection and arrangement prove that the Doctor has bestowed much time and attention on the subject. I unhesitatingly recommend them to the heads of families. They will find in possessing those Chests, they will not only have the means of repelling disease at its first approach, always at hand, but will evidently be practising true economy, as these medicines are below the common retail prices in Cities.

I would also advise every family to possess Dr. Ewell's "*Medical Companion.*" If it were necessary at this day to speak of this work, I could join heartily in its commendation. But as it has long since been recommended to the attention of the public by Medical men of the first talents and standing in our country, I am not vain enough to suppose that any thing I could say is wanting to give it an extensive circulation.

J. S. SMITH, M. D.
of the House of Representatives of U. States.
Washington City, March, 1820.

I have, with some attention, examined Dr. James Ewell's *Medical Chests* which he prepares for the use of families, and find them handsomely furnished with a good collection of the best articles for practical use. Every intelligent man, by the aid of his book, and this assortment of medicine, will be able to select an appropriate remedy for a long list of human maladies; which, by timely application, may save much distress both of body and mind. And I do not hesitate to recommend his selection of medicines as being the best chosen assortment I have examined for the purposes they are designed.

JOEL ABBOT, M. D.
of the House of Representatives, U. States.
Washington City, March, 1820.

I have examined minutely and with much satisfaction the *Medicine Chests* put up by Doctor James Ewell, of Washington City, and believe that they are superior both as to the extent of the assortment, and the genuineness of the medicines, to any I have ever seen.

The arrangement of the chests is different from those generally offered to the public, comprising in a neat and compact form not only a greater variety of medicines, but the quantities better proportioned to the uses for which families generally require them—indeed it may be said that the medicine chests of Doctor Ewell contain every thing necessary for domestic practice, most advantageously arranged, and as an accompaniment to the "*Medical Companion,*" would unquestionably be a valuable possession to every family.

WILLIAM TERRILL, M. D.
of the House of Representatives, U. States.

Washington, March, 1820.

The reputation which his MEDICINE CHESTS have acquired, having already roused the spirit of impostors, Dr. Ewell, feels it his duty to inform the Public, that in future his agents will carry certificates with his signature authenticated under the Seal of the Clerk of the Court for Washington County, District of Columbia.

Orders from any part of the United States will be attended to. The Author will also observe, that though the profits on the chests are so inconsiderable, as not to justify additional expense, yet, as their use will unquestionably be attended with public benefit, they will be sent, without additional charge, to any of our Sea-port towns, or to Wheeling or Pittsburg: from whence, they may be conveyed by land carriage, any distance without the breakage of a bottle or injury of the chest.

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